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NEW
PRINCIPLES
OF
GARDENING:

Or, The Laying out and Planting

PARTERRES, GROVES, WILDERNESSES,
LABYRINTHS, AVENUES, PARKS, &c.

After a more GRAND and RURAL MANNER, than
has been done before;

With Experimental Directions

For raising the several Kinds of FRUIT-TREES, FOREST-
TREES, EVER-GREENS and FLOWERING-SHRUBS
with which Gardens are adorn'd.

To which is added,

The various NAMES, DESCRIPTIONS, TEMPERATURES,
MEDICINAL VIRTUES, USES and CULTIVATIONS of
several ROOTS, PULSE, HERBS, &c. of the Kitchen and
Physick Gardens, that are absolutely necessary for the Service of
Families in general.

Illustrated with great Variety of GRAND DESIGNS, curiously
Engraven on twenty eight Folio Plates, by the best Hands.

By *BATTY LANGLEY* of *Twickenham*.

L O N D O N :

Printed for A. BETTESWORTH and J. BATLEY in *Pater-Noster*
Row; J. PEMBERTON in *Fleetstreet*; T. BOWLES in *St. Paul's*
Church-Yard; J. CLARKE, under the *Royal Exchange*;
and J. BOWLES at *Mercer's Hall* in *Cheapside*.

M DCC. XXVIII.

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THE

PRINCIPLES OF

The Laying out and Planting

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I Indulge into vegetable Na-
ture, being the Delight of
Your Majesty and Your Royal
Comfort, I humbly presume to
lay at Your Majesty's Feet, these
Plans of Potagers, Groves, Wil-
lows, &c. which are entirely
new, but embellish'd with many
of the most noble Antiquities
now extant in other Countries.



I hum

TO THE
KING.

SIR,
INquiries into vegetable Nature, being the Delight of Your Majesty, and Your Royal Consort, I humbly presume to lay at Your Majesty's Feet, these Plans of *Parterres, Groves, Wildernesses, Labyrinths, Avenues, Parks, &c.* which are entirely new, but embellish'd with many of the most noble Antiquities now extant in other Countries.

I hum

DEDICATION.

I humbly offer the following Work to Your *Majesty's* Patronage and Protection, whose *Royal Regard* for the useful Arts of Planting and Gardening will sufficiently recommend their Improvement to the Nobility and Gentry of *Great Britain*.

May Your *Majesty*, and Your *Royal Consort*, long live to be a Blessing to these Nations, and at length transmit them, with Your *Imperial Crown*, to Your *Most Illustrious* and *Royal Issue*, is the fervent Prayer of,

Your *Majesty's* Most Loyal,
Most Obedient,

And faithful Subject,

Batty Langley.



T H E INTRODUCTION.



O consider how many Authors (as *Evelyn, Meager, Woolridge, Cook, Lawrence, Bradley, London, Wise, Carpenter* and others, who) have wrote on Gardening, and the vast Numbers of fine Plants that are, and have been for sixty years past, raised in our Nurseries about *London*, would make a Foreigner (that had not seen the Gardens of *England*) believe, that they excell'd all others in the World; more especially as we abound with the best of *Grass* and *Gravel* of any People whatsoever: But to our great Misfortune, *our Gardens are much the worst of any in the World*, some few excepted, that have been laid out by *Gentlemen*, who have a grand and elegant Taste in Designing, known to very few Gardeners.

Among all the celebrated Books that have been wrote on the laying out Gardens, *The Theory and Practtice of Gardening*, translated from the *French* by Mr. *John James* of *Greenwich*, and those wrote by Mr. *Stephen Switzer*, are the very best. But even those are far short of *that great Beauty which Gardens ought to consist of*: For since the Pleasure of a Garden depends on the variety of its Parts, 'tis therefore that we should well consider of their Dispositions, so as to have a continued Series of *Harmonious Objects*, that will present new and delightful Scenes to our View at every Step we take, which re-

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gular Gardens are incapable of doing. Nor is there any Thing more *shocking* than a *stiff regular Garden*; where after we have seen one quarter thereof, the very same is repeated in all the remaining Parts, so that we are tired, instead of being further entertain'd with something new as expected.

These regular Gardens were first taken from the *Dutch*, and introduced into *England* in the Time of the late Mr. *London* and Mr. *Wise*, who being then suppos'd to be the best Gardeners in *England* (the Art being in its Infancy, to what it is now) were employed by the *Nobility and Gentry of England* to lay out and plant their Gardens in that *regular, stiff, and stuff up Manner* in which many yet appear.

And as *Gentlemen*, in those Days, were but slightly acquainted with the Pleasure of Gardening, they were the easier imposed upon: Their Gardens were *crowded* with Ever-Greens and other Plants, so that they had more of the Aspect of a *Nursery*, than a *Garden of Pleasure*: But whether this over and above thick Planting proceeded from the Fashion of those Times, the Ignorance of the Designers, or the Advantages that might accrue from the greater Sales of their Plants, I am not able to determine.

And besides, their stiff regular Plans were always stuff'd up with *trifling flower Knots, Parterres of Cut-work, Embroidery, Wildernesses of Ever-Greens*, and sometimes of *Forest Trees*, (tho' very rarely, for their Nurseries then abounded most with *Tews, Hollies*, and other *Ever-Greens*) whose Walks ever had a *niggard Breadth*: So that after a few Years the Growth of the Plants were such that they were hardly passable.

Their *Wildernesses* and *Groves* (when they planted any) were always placed at the most remote Parts of the Garden: So that before we can enter them, in the *Heat of Summer*, when they are most useful, we are obliged to pass thro' the *scorching Heat of the Sun*.

Indeed, 'tis oftentimes necessary to place *Groves* and open *Wildernesses* in such remote Parts of Gardens, from whence *pleasant Prospects are taken*; but then we should always take care to plant *proportionable Avenues* leading from the House to them, under whose *Shade* we might with Pleasure pass and repass at any time of the Day.

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There is nothing more agreeable in a Garden than good *Shade*, and without it *a Garden is nothing*.

That fine Terrace Walk at His MAJESTY'S *Royal Palace* of *Hampton Court*, leading from the Parterre to the Bowling-Green next the *Thames*, being naked of *Shade*, is thereby useless, when the Sunshines; as is also that of His ROYAL MAJESTYS at *Richmond* next the River. There are divers other fine Walks in *England* that want this natural Embellishment of Trees that cause FINE SHADE, such as PLATANUS, *English ELM*, HORSE-CHESSNUT, LIME, &c. In whose stead, to my great Surprize, are planted *regular Yews* and *Holly* only as in Parterres, &c.

The very great Exactness that was observed in the laying out these regular Gardens, were often the *Loss* of many *fine Views*, as well as *sturdy OAKS*, whose *Herculean Aspects*, one would have thought, should have forbid those *base* and *ignorant Practices*. What a Shame it is, to destroy a *noble OAK* of two or three Hundred Years Growth, that always produces a *pleasant Shade*, and graceful Aspect for the sake of making a *trifling Grass-Plot* or *Flower Knot* regular.

Their *Parterres* of *Embroidery*, that consisted of *Grass*, *Sand*, *Shells*, *Brickdust*, &c. crowded with *Ever-Greens*, were the first Cause of these stiff Regularities; which indeed, when used, should be uniform; because the Eye being struck with all their Parts at the same Time, each opposite part should be equal: But afterwards, when we depart from this first regular Scene, then all the remaining Parts should consist of *regular Irregularities*: And the plainer *Parterres* are, the more *Grandeur*, for when they are stuff'd up with so many *small Ornaments*, they *break the Rays of Sight*, and the whole appears a Confusion.

Those great *Beauties of Nature*, HILLS and VALLEYS, were always levelled at very great Expences to complete their Regularity, or otherwise I may justly say, *the total ruin of the Gardens*. And their *Basins*, *Canals*, and other *Pieces of Water*, had always a very *mean Latitude* to their Length, as well as *improper Figures*, broke into many Angles which destroy the Beauty of fine Water.

Their GROVES (whenever they planted any) were always regular, *like unto Orchards*, which is entirely wrong; for when we come to *copy*, or *imitate Nature*, we should trace her
Steps

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Steps with the greatest Accuracy that can be. And therefore when we plant *Groves of Forest or other Trees*, we have nothing more to regard, than that the outside Lines be agreeable to the Figure of the Grove, and that no three Trees together range in a strait Line; excepting now and then by Chance, to cause Variety.

And since *Parterres* are most beautiful when *entirely plain*, I therefore recommend the removal of all Kinds of Ever-Greens from thence, and to have no more *Gravel Walks* about them than are necessary for Use. Whoever has seen those *grand and beautiful PLOTS or PARTERRES of Grass* in the Gardens belonging to HAM HOUSE in *Surrey*, opposite to the *Honourable JAMES JOHNSTON* at *Twickenham*, will agree with me herein; and were those eight Plots, or Parterres, laid into *two* only, they would be the *most grand* of any in *England*; more especially if that Grove of *Forest Trees*, joyning to them on the *East*, were taken in and made a part of that Garden.

The *Parterre Garden* at his MAJESTY'S *Royal Palace* of *Hampton Court*, towards the *Park*, would have a very *grand Aspect*, were those *trifling Plants of Tew, Holly, &c.* and their Borders taken away, and *made plain with Grass*. So also would the other *Parterre*, looking to the River *Thames*.

Besides all the aforesaid *erroneous Practices* in the laying out Gardens, I could mention divers others, almost without end; but as what has been hitherto said is fully sufficient to demonstrate how little the laying out of Gardens has been understood, I shall therefore conclude on this Point with one other *very great Error* that's often committed, and even at this time, which may not be unnecessary for my Readers to take Notice of, *viz.* When the Situation of Gardens such, that the making of *Slopes* and *Terraces* are necessary, or cannot be avoided, they not only leave them *naked of Shade* as aforesaid, but *break their Slopes* into so many Angles, that their *native Beauty* is thereby destroy'd. Thus if by waste Earth a *Mount* be raised *ten or twelve Feet high*, you shall have its Slope, that should be entire from top to bottom, broken into three, if not four small *trifling ones*, and those mixt with *Archs of Circles, &c.* that still adds to their ill Effects: So that instead of having one *grand Slope* only with an easy Ascent, you have three or four small ones, that are *poor and trifling*.

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And the only reason why they are made in this Stair or Step-like manner, is first to shew their Dexterity of Hand, without considering the ill Effect; and lastly to imitate those *grand Amphitheatrical Buildings*, used by the *Ancients*, of which they had no more Judgment, than of the excellent Proportions of Architecture that was used therein, when those noble Structures were first erected.

In this low mean Manner I find some *Slopes* made at the Head of his MAJESTY'S *Canal* and *Mount* next the *Thames* at *Richmond*, which *Canal* is much *too narrow* for its Length: I also find the Plantation of *Forest Trees* on each Side thereof, not only *broken in the middle* without a Reason for so doing, but *stiff* and *regular* in their Situations, without any Regard to that beautiful Order, which *Nature* observes in all such rural Operations.

I observe the like *Error* in the *Slopes* of the Garden of the *Honourable Mrs. HOWARD* at *Twickenham*, being view'd at the River *Thames*, and the same at *General Bisset's* Amphitheatre (as called by its Architect) in his Garden at the same Town, as well as in that of the *Honourable John Gumley's* at *Isleworth*, and many other Gardens too tedious to mention.

When very large Hills of great perpendicular Heights are to be cut into *Slopes* and *Terraces*, then we may justly endeavour to imitate those grand Structures, (whereon their Gladiators exercis'd) by cutting them Concave, Convex, &c. as those looking towards *Fair-Mile Heath*, in the Gardens of his Grace the DUKE of NEWCASTLE at his *Grand Seat of Claremont*; but in small Elevations they are poor and trifling, and therefore not to be used.

Having duly consider'd these erroneous Practices, and what a great pity it is that *Gentlemen* should be thus led on for want of being furnished with Designs that are *truly Grand and Noble*, after *Nature's own Manner*; I thought that if I communicated some few in that Way, I might do no inconsiderable Service to my *Country*, nor Prejudice to any of my *Brother Gardeners*.

This Method of *laying out Gardens*, after the manner exhibited in the following Plates, being *entirely New*, as well as the most *grand* and *rural*; I have thought it necessary, not only to lay down all the most useful *Elements of Geometry*, necessary

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necessary to be well understood by every good Gardener that's employed in *making and laying out Gardens*; but the manner of raising and planting all sorts of *Fruit and Forest Trees*, *Ever-Greens*, and *flowering Shrubs* also; together with the right Ordering, and Cultivation of all such Vegetables are raised in the *Kitchen Garden*. All which are handled at large in the first, second, third, fourth, fifth, and seventh Parts.

The sixth Part contains *general Directions* for the laying out, and planting of Gardens in the manner aforesaid, exemplified by twenty eight Folio Plates.

Plate I. contains all the Geometrical Diagrams of the Problems contain'd in the first Part, with an *octangular Lawn*, of which hereafter.

Plate II. is the *Plan* of a *Fruit Garden*, containing three quarters of an Acre, planted with the best *Wall, Espalier, Dwarf*, and *Standard* Fruits now extant in *England*.

Plate III. is the Design of a *rural Garden*, after the new manner, where the front of the House opens upon a fine *large plain Parterre*, environed with an easy agreeable *Slope* and proportionable Verges of Grass; adorn'd with *Apollo, Minerva* and *Pallas*, the *seven liberal Arts*, *Mercury* and *Pytho*.

The Goddesses *Minerva* and *Pallas*, to be placed at A and B, *Apollo* at C, the *seven Sciences* at D, E, F, G, H, I, K, and *Mercury* and *Pytho* at L and M. In the Center of this *Parterre* is an *octagon Basin of Water* which may be adorn'd with *Neptune*. This open *Parterre* is planted on the Sides P. Q. with double Lines of *Pines* and *Scotch Firs*. The *Terrace* S. S. with *Platanus*. The little Groves R. R. with *Lime Trees*. The open Grove O with *Horse-Chesnuts*, and N with *English Elm*. The middle or center excepted, which are Standards of *Scotch Firs*. T, T. with *Cedars of Lebanon*, *Cyprus*, and *Lignum Vitæ*. The Avenue V. V. with *Platanus*: The Groves Y, with Standards of *Holly*, *Yew*, *Bay Tree*, *Laurel*, *Ever-Green*, *Oak*, *Box* and *Phillyrea*. All which Trees throughout these several Plantations are planted at their Bottoms, with *Honey Suckles*, *Sweet Briers*, *white Jessamine*, and the several *Sorts of Roses*: And about the Stem or Body of every Tree are cut Circles about fourteen or sixteen Inches in Breadth sown with *Dwarf Stock*, *Candy Turf*, *Pinks*, *Sweet Williams*, *Catch-fly*, &c. which make no little Addition to the Beauty of our Plantations.

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The Groves N O are adorn'd with *Sylvanus* God, and *Ferona* Goddess of the Woods. The Walks about the two Canals, and the Centers Z Z with *Apollo* and the *nine Muses*; the Cabinets X, X, with *Ceres* and *Flora*, and V, with *Harpocrates* God, and *Agerona* Goddess of Silence. And the other Statues in private Cabinets, with *Nymphæ* Fairies of the Woods, *Actæon*, *Diana*, *Eccho*, &c. and the large circular plain W. is open without a Statue: But if any Gentleman should be inclinable to place one in that Center, it should be *Hercules slaying Hydra*.

The *Serpentine*, and strait lined Walks within the Plantations of Wood or *Wilderness Work*, are planted with Standards of *Oak*, *Beach*, *Elm*, *Lime*, *Maple*, *Sycamore*, *Hornbeam*, *Birch*, *Platanus*, *Wicky* or *Quick-beam*, *Alder*, *Poplar*, *Witby*, and the *weeping* or *mourning Willow* that was brought from *Babylon*, and now in great Plenty and Perfection in *England*. Particularly, in the Gardens of the late *Thomas Vernon Esq*; at his Seat of *Twickenham Park* in *Middlesex*. The Distances that those several Sorts of Forest Trees are planted at, and the Soil they delight in, are fully handled in the following Work.

The Hedges that are planted between the aforesaid Trees which form the Sides of the Walks are of *English*, *Dutch* and *French Elms*, *Lime*, *Hornbeam*, *Maple*, *Privet*, *Tew*, *Holly*, *Arbutus*, *Phillyrea*, *Norway Fir*, *Ilex*, *Bay*, *Laurel*, *Laurus-Tinus*, *Piracantha*, *Juniper*, and the *English Furze*; and indeed, a beautiful Plantation should not only be adorned with entire Walks and Hedges of Trees of all Sorts, as well Fruit as others; but intermix'd together in many parts, as if Nature had placed them there with her own Hand. The agreeable Mixture of Fruits in a *Wilderness*, causes great Variety and Pleasure, as well as Profit: In the *Spring*, when their beautiful Blossoms appear, they then exceed all other Plants, and particularly the *Mirabalon Plum* and *Almond*, of which I advise Gentlemen to plant entire Walks; for they not only make the most beautiful Appearances in the *Spring*, which hold for some Time, but afterwards are very pleasant, both in their Leaf and Fruits: As likewise are all our other Fruits, such as *Plumbs*, *Pears*, *Apples*, *Cherries*, the *Bruxel Apricot*, *white and blue Figs*, *Grapes*, *Mulberries*, *Quinces*, *Medlars*, *Services*, *Walnuts*, *Chestnuts*,
b *Philberds*,

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Philberds, Berberrys, Gooseberries and Currants: And altho' they may not be in such great Perfection, as those that are planted at greater Distances in the free open Air, as in *Kitchen and Fruit Gardens*, yet in kind *Summers* they will not be much behind them; so that from Plantations of this Kind, *Gentlemen* will not only be entertained with the Pleasures that arise from them, throughout the several Stages of their Growth, but receive such *Plenty of Fruits*, as to make *large Quantities of Wine, Cyder, &c.* for the Service of their Families.

The Borders of each Walk are planted with *Violets, Primroses, Snow drops, &c.* as directed in the 22 and 23 Sections. Part V.

The Quarters are filled up with Standards of the aforesaid Kinds, planted at proper Distances, and under them by Plants of *Laurel*, which *thrive best in the Shade*, and Flowers of a strong Growth, as directed in Sect. 23. Part V.

FLOWERING SHRUBS are very beautiful when planted in the Wilderness as directed in Sect. 21. Part V. which are not to be omitted, if we intend to have our Garden complete.

Our several Plantations being thus performed, we are, at coming into the Garden, entertain'd with a *Plain (but Grand) Parterre of Grass and Water*, enriched with *Statues* agreeable to their Situations, from which, on the right and left, we look into two *pleasant Groves of Forest Trees*, which complete the *first Scene*, at our coming into the Garden; then through the Walks P R, or Groves N O, we pass in the Shade to V, the Entrance into the *Grand Avenue V, V*, where on a sudden we are entertain'd with two *pleasant Canals* enrich'd with *Statues*, and *Groves of Ever-Greens*, and coming from thence to the open plain W, we behold a pleasant cross Walk, planted with Standard Trees of all the *Varieties of Ever-Greens*, which terminate in Cabinets, adorn'd with *Ceres and Flora*.

If we enter the Wildernesses at b b, &c. we are led through their *pleasant Meanders*, with the agreeable Entertainments of *Flower Gardens, Fruit Gardens, Orangerys, Groves, of Forest Trees, and Ever-Greens, Open-plains, Kitchen Gardens, Physick Gardens, Paddocks of Sheep, Deer, Cows, &c. Hop Grounds, Nurseries of Fruit and Forest Trees, Ever-Greens, &c. Vineyards, Inclosures of Corn, Grass, Clover, &c. Cones of Fruit Trees, Forest Trees,*

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Trees, Ever-Greens, Flowering Shrubs, Basins, Fountains, Canals, Cascades, Grottos, Warrens of Hares and Rabbits, Aviaries, Manazeries, Bowling-Greens; and those rural Objects, Hay-Stacks and Wood Piles, as in a Farmer's Yard in the Country. Which several Parts are disposed of in such a Manner, and Distance, as not to see, or know of the next approaching, when we have seen the first, so that we are continually entertain'd with new unexpected Objects at every Step we take; for the Entrances into those Parts being made intricate, we can never know when we have seen the whole. Which (if I mistake not) is the true End and Design of laying out Gardens of Pleasure.

By this Method of laying out Gardens, those that are but small, will be made to appear as very large ones, and those that are spacious and large, Grand and Noble.

If we imagine that the Avenue B, Plate III. takes its Beginning from an open Plain or Lawn lying before a House, as the Avenue V, doth of Plate II. from the plain Parterre there described, we have another Design that is Grand and Noble, which is supposed to be planted in the Manner aforesaid, the Walks about the Canal excepted, which should be of stately Pines, and the Thickets B and D, which finish the two cross Views, should end in a Mixture of Ever-Greens back'd with lofty Pines behind them.

The Groves E, and F, F, that terminate the Water, have a much finer Aspect being planted in that rural Manner, than when ranged in Lines like a Cherry or Apple Orchard, as before noted in the Beginning of this Introduction.

Plate V. is a third Design of an Avenue with its Wildernesses on each Side, wherein is contain'd great Variety of Walking. The Avenue B, D, having its Canal terminated at both Ends with Groves of Forest Trees, is something out of the common Road: But when the Bodies of such Trees are kept prun'd up about twenty Feet high, the Water makes a fine Appearance, being view'd through them; as also have distant Hills, &c.

The Walk E F, is supposed to be a Terrace from whence we have a fine View over the Country, which is planted with Platanus, or English Elms, that always afford a pleasant Shade. In this Manner there are many noble Walks in England want

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to be planted, to render them pleasant at all Times.

Plate VI. is a fourth Design, containing *strait, angular, circular, and rural Walks* after a different Manner from the preceding.

Plate VII. consists of four several Designs for *Wildernesses and Labyrinths* wherein A A, &c. are *Arbors*, or Places of Repose.

Plate VIII. is an Improvement of that *grand Labyrinth at Versailles*, wherein all the *strait Walks* are as they now stand, and the curved or serpentine Walks B B, excepted with their *Groves, Cabinets and Statues*, are Additions that may be made to that beautiful Place. *This I thought fit to communicate, as being the finest Design of any I ever saw.*

Plate IX. is an Improvement of a *beautiful Garden at Twickenham*, situated on the *River Thames*, which passes by the Line E F, and has a free communication with the Canals X and Z. That of X, continues the View of the Walk I H, away to X, and from thence over the *River Thames*, and there terminates in a pleasant Wood. At R, there is a *Ha, Ha*, of Water, which is a Fence to the Garden from the Road, and admits of a *free View*, which Iron Gates or Grills cannot do. I mention this to shew, that *Hab Ha's* should be made in every part of a Garden from whence good Views may be had.

The Earth that came out of the *Ponds B, B*, raised the *Mount A*, from whence is a *very fine View to the Thames*, as well as to *Richmond Hill, Petersham, &c.* and underneath it is a very good Ice House.

The Reason why I mention this, is to shew, that when the *Levels of Gardens are very flat*, and *good Views are lost* for want of proper Elevations, that then we must dig *Fish Ponds, Canals, &c.* if the Springs are not too deep; and with their Earth raise *pleasant Mounts, Terrace Walks, &c.* from whence we may enjoy the *pleasant Views* of the distant Countries.

If the Walks leading up such *Mounts* as A were *contracted at their Top K*, to *one third* of their Breadth at Bottom I, that Contraction would cause the Walk to appear of a much greater Length than it really is, being viewed at H. But then the ascending Walk must be the whole Breadth at I.

There being a fine View from the House to the River, the
Quarters

Quarters Q Q, must be planted with Fruit Trees of a low Growth; such as Apples upon *Paradise Stocks*, &c. that will afford great Variety of Pleasure as well as Profit, and not interrupt the View. The other Parts here offered being *Wildernesses*, *Labyrinth*; *Groves*, &c. as exhibited, need no further Explanation.

Plate X and XI, are Designs for Gardens that lye irregularly to the grand House. In Plate X, the House opens to the *North* upon the *Park A*, to the *East* upon the *Court B*, to the *South* upon the *Parterre of Grass and Water C*; and Lastly to the *West* upon the *circular Bason D*, from which leads a *pleasant Avenue Z X*. The *Mount F*, is raised with the Earth that came out of the *Canal E E*, and its *Slope H* is planted with *Hedges of different Ever-Greens*, that rising behind one another of different Colours, have a very good Effect, being view'd from M. I, I, are contracted Walks leading up the Mount. The remaining Parts being obvious need no farther Explanation.

Plate XI. hath its House opening to the *North* upon a *plain Parterre of Grass*, and to the *South*, upon a *Parterre of Grass and Water*: From the Terrace E leads an *Avenue I F*, wherein at D is a *pleasant Cabinet*, from whence we have five different Views, of which the Middle one through a *rural Grove* of Forest Trees, over a *Canal of Water*, terminated with the semi-circular Grove of *Ever-Greens*, is very pleasant.

The Walk P Q is supposed to be a *pleasant Terrace*, planted with Forest Trees for Shade, in equal right Lines; but the Walk R S, is planted rural after *Nature's own Manner*. The rest being very easy to understand, need no farther Explanation.

It is to be observed in these two Plans, that there's no regard had to the *Regularity* of the *Bounds of those Gardens*, which hitherto were supposed impossible of making good Gardens, when in fact they make the most beautiful.

Plate XII. is the Design of a small Garden situated in a *Park*, where the House to the *North* opens upon a *noble circular Basin of Water B*, in the *Park*, and to the *South*, on a *grand Parterre of Grass*, from which over the *Canal* you have a boundless View into the Country.

The several *Avenues* and *Groves* contain'd in this Design, illustrate

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illustrate the great Beauty thereof, without any Regard had to the *Wildernesses, Labyrinths, &c.* which are very fine in their Kind also. The other Parts being plainly exhibited, need no further Explanation.

We having thus passed through all the most pleasant Parts of a *delightful rural Garden*, we must now suppose, that we are entering from X Y, of Plate III, at Z of Plate XIII, where we surprizingly behold a *pleasant semi-circular Lawn*, from which the *grand Avenue V, V*, of Plate III. is continued to H, &c. throughout the whole Estate.

And we are here again in every of its Parts entertain'd with *different Views, open Plains, Groves, Thickets, open and private Fish Ponds*, and in brief every Thing that's pleasant.

From Plantations of this Kind, time would produce vast Quantities of Timber to the great Service of our Country and Improvement of Estates.

Plate XIV. is another Specimen of a *Park*, after a different, but *grand and noble Manner*, where its Island is laid out in *rural Walks and Cabinets*, and the other Parts embellish'd after *Nature's own Rules*, which is discoverable at first View.

Plate XV. is the Design of a *Garden and Wilderness in an Island*, lying before the View of a *House, Terrace, &c.* B is a *Temple of View* erected on a *double Mount*, called (tho' improperly by *Gardeners*, an *Amphitheatre*) where 'tis to be observed, that altho' the Slopes thereof are broke by the Angles, yet 'tis in such an agreeable *grand Manner*, that they have a *noble Aspect*.

The other Parts being easily understood at View, need no further Explanation.

Plate XVI. contains great Variety of *Lawns, or Openings*, before a *grand Front of a Building*, into a *Park, Forest, Common, &c.* with an elegant *Cabinet* in the middle of a *Thicket*, on the top of a Hill, in whose Center at A, is supposed to be erected a spacious Building *after the Form of a Temple*, from whence fine Views may be seen about the *Horizon*.

Plate XVII. contains the Design of a *Fountain and Cascade* after the *grand Manner at Versailles*. From whence we pass thro' those pleasant shady Walks B B, to other Parts of our Gardens.

When

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XV

When Figures of *Shell work* are erected in the midst of *Fountains*, we receive a double Pleasure of a *Fountain* and *Cascade* also, by the Waters agreeably murmuring down the rocky Shells.

Plate XVIII, contains divers curious *Frontispieces of Trellis Work* for the Entrances into *Temples of View, Arbors, shady Walks, Alcoves, &c.*

Plates XIX, XX, and XXI, are Views of the *Ruins of Buildings*, after the *old Roman manner*, to terminate such Walks that end in *disagreeable Objects*; which *Ruins* may either be *painted upon Canvas*, or actually built in that Manner with *Brick*, and *cover'd with Plaistering* in Imitation of Stone.

And since we are to build no more thereof than as much of the Shell, as is next to our View, I therefore recommend their Building before their Painting, not only as the *most durable*, but *least expensive* (if the Painting is performed by a skilful Hand) and much more to the real Purport intended.

To demonstrate what Effects they have when placed to terminate *Avenues, Walks, &c.* I have put one of them at the end of an *Avenue* in Plate XXII, which being viewed with one Eye through our Hand, or a piece of Paper roll'd up, so as to look through the same, you will behold its agreeable Effect with abundance of Pleasure. In the same Manner, the shady Walks of the preceding *Plates* are to be seen, and not according to the common way of viewing Objects with both Eyes at once.

The six last Plates at the end hereof, are Designs for *Kitchen Gardens*, of which the first is divided into equal Quarters, wherein is express'd the Quantity of each Vegetable that is necessary for the Service of a *Nobleman's Family*, as is also Plate II, and III. The *Italick Figures* denote the breadth of each Walk, as 6 signifies six Feet, 15 fifteen Feet, &c.

Plate VI. is the Design of the *Kitchen and Physick Garden*, with its Quarters environ'd with *Espaliers of Fruit*. The Design of this Garden is for the Use of Families, which require many Herbs for Distilling, as well as for the Use of the Kitchen, wherein the necessary Quantities are nearly adapted to the Use of most Families.

Plate

The INTRODUCTION.

Plate V. is the Design of a *Kitchen Garden* containing *one Acre, half, and twenty Poles*, and Plate III, another of *three Rood and twelve Pole* only, fit for lesser Families than the preceding. But as the Design of these Plans are *more to instruct in the Forms of Kitchen Gardens*, than their Quantities of Ground, or Herbs of each Kind as they may best approve on; therefore every one is at his Pleasure to sow and plant of each Sort of *Herbage, Roots, Pulse, &c.* such Quantities as are necessary for their Use.

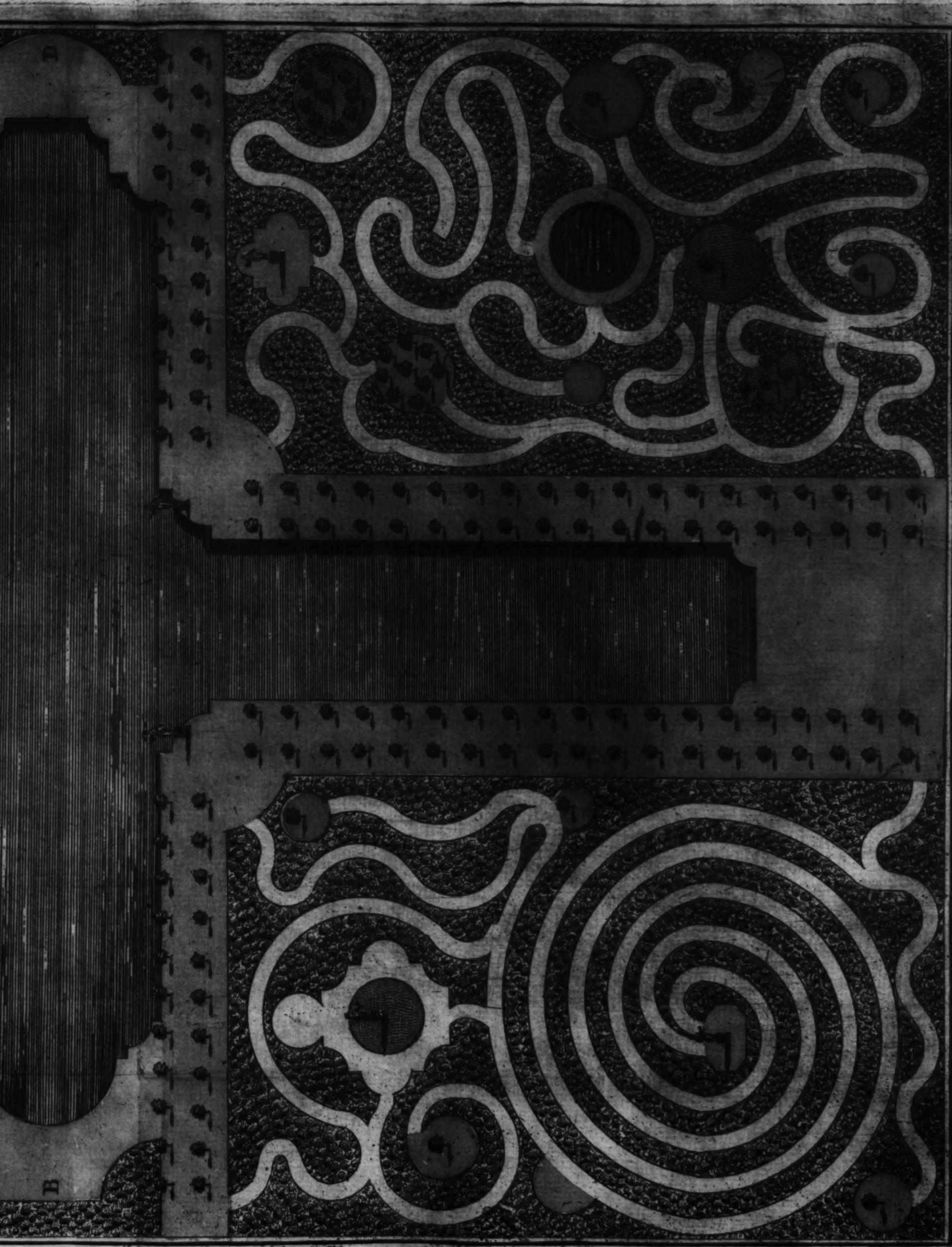
For the *Temperatures, and Medicinal Virtues* of the *Kitchen* and *Physick Herbs* contain'd in the last Part, I am obliged to that laborious *Herbarist Gerrard*; which being well understood will prove of very great Service to us, in composing our Salads at all Times of the Year, suitable to every strong or weak, hot or cold Stomachs, that are found in the different Constitutions of People.



NEW PRIN-



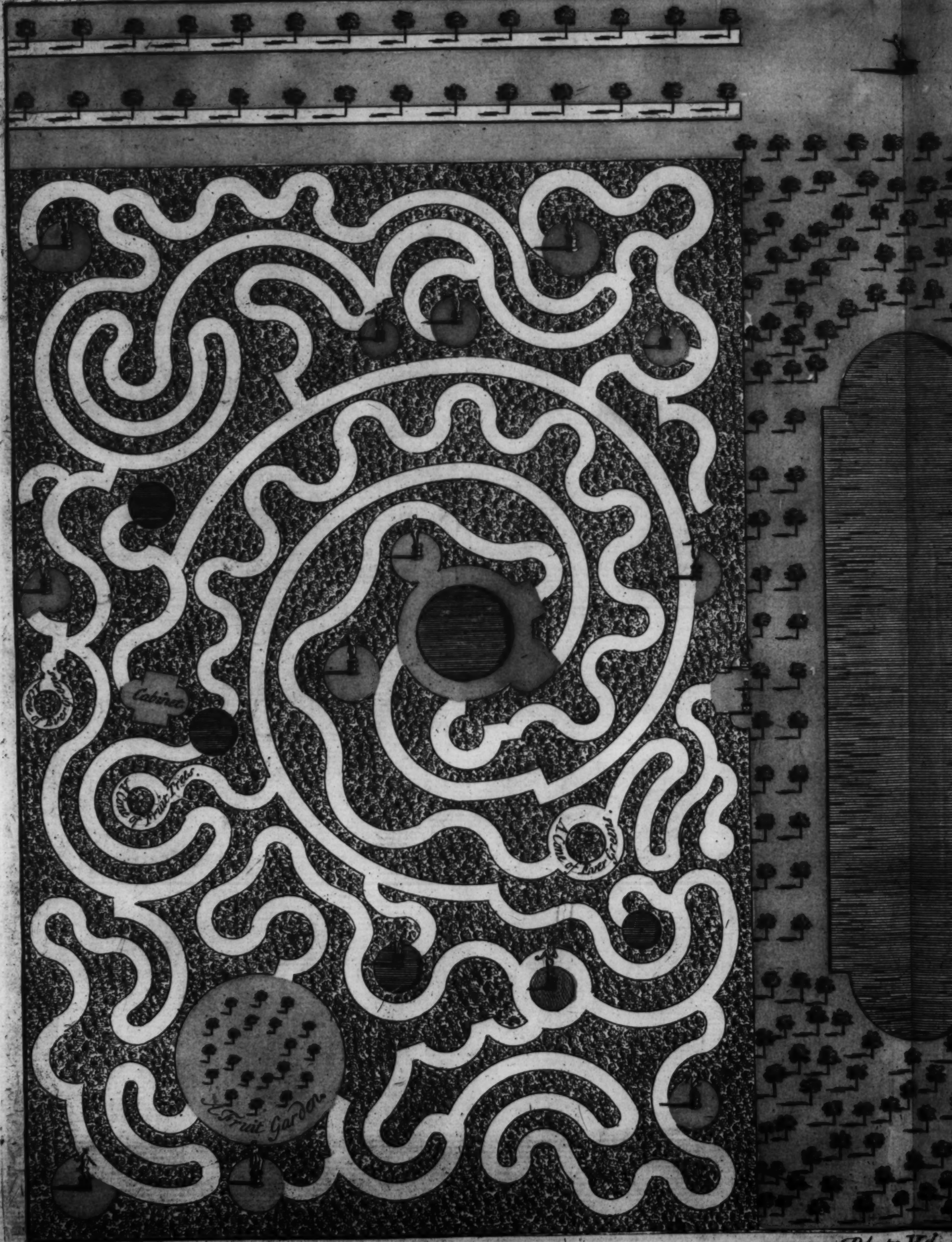
B



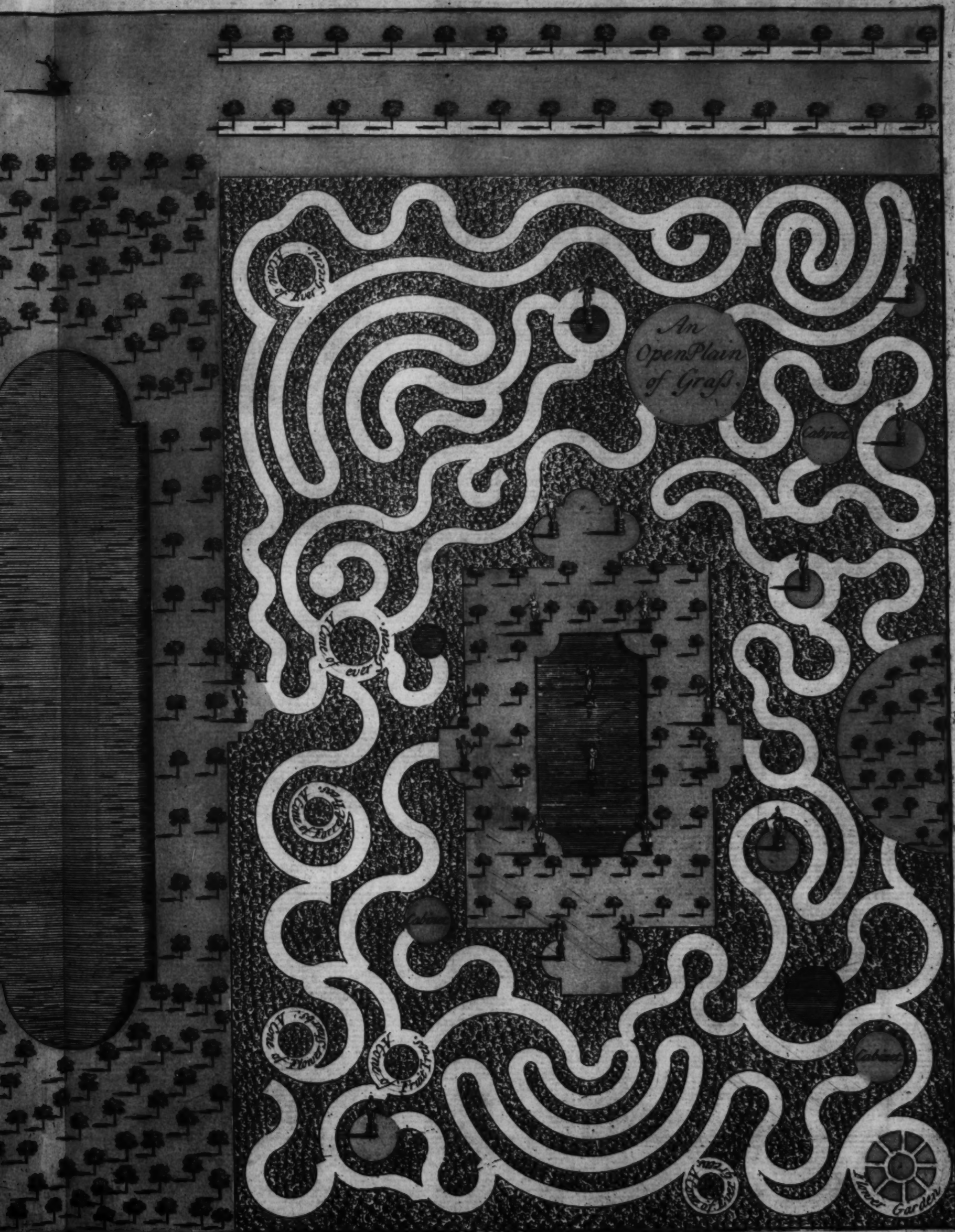
B. Langley Invent et delin.

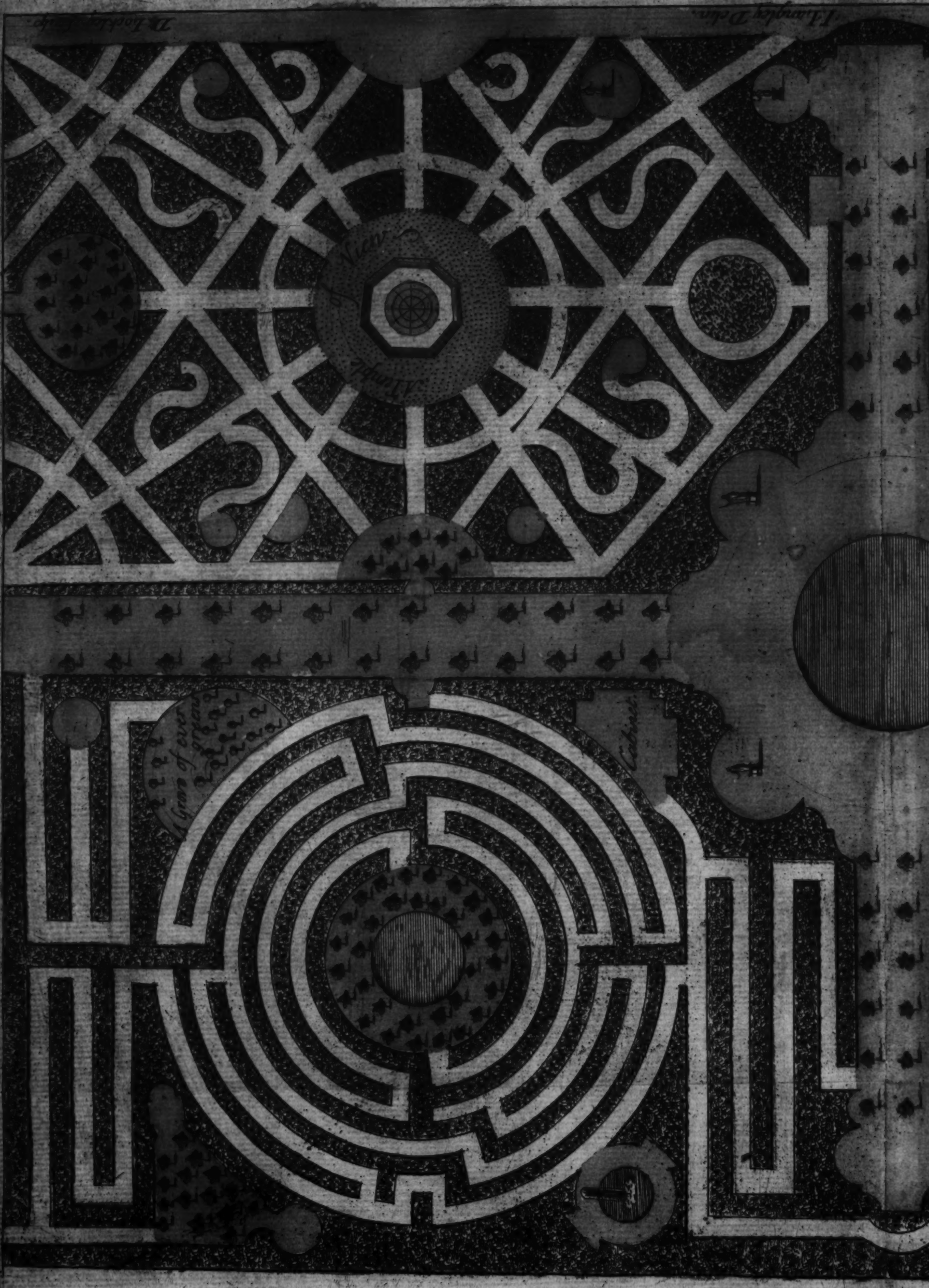
Plate III

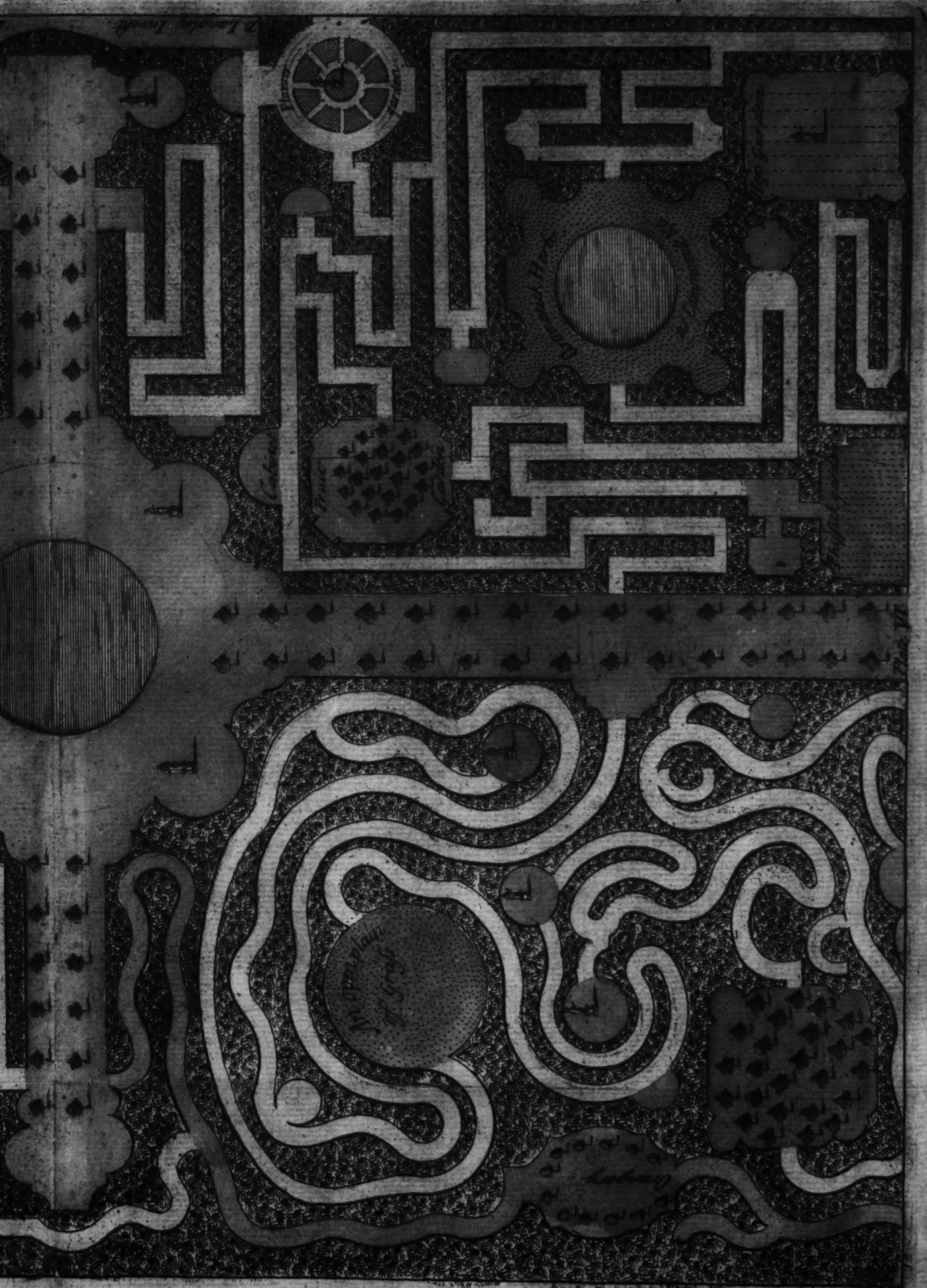
T. Dwyer Sculp.



T. Langley delin.

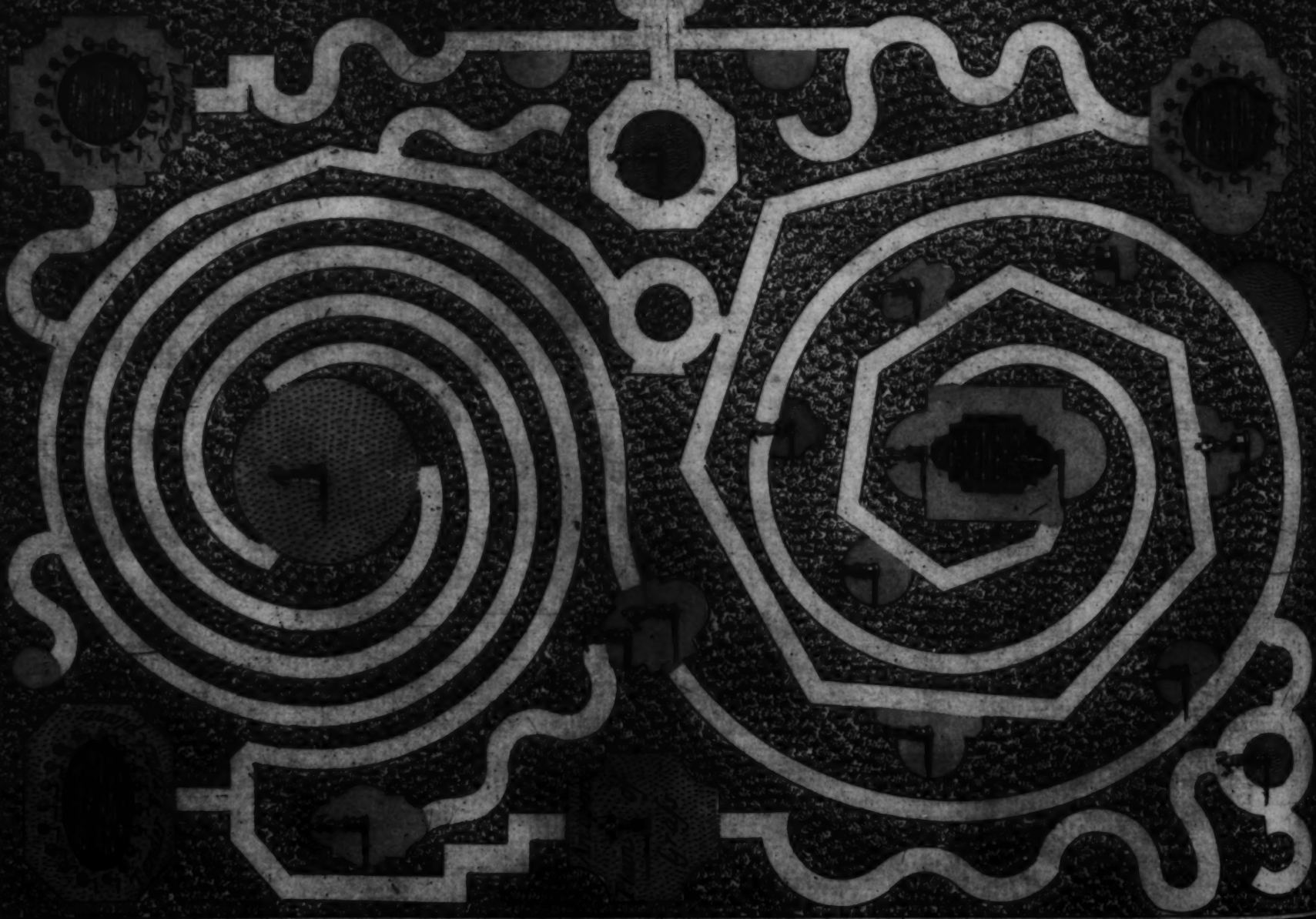




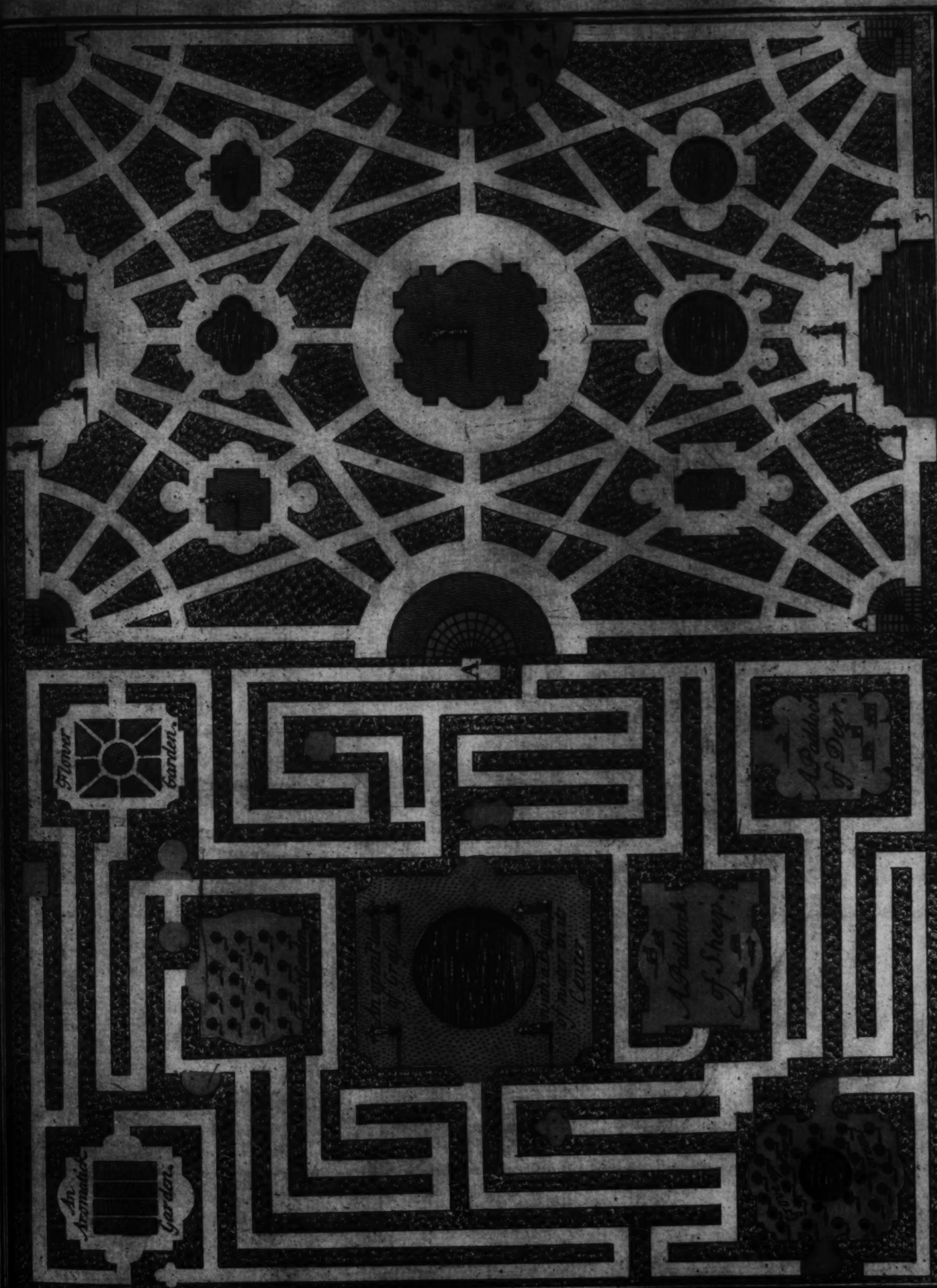




A garden of vines



Flower



T. Langley Dehn.

Plate VII.

P. Langley Invent.

rp[®]



NEW
PRINCIPLES
OF
GARDENING.

PART I.
Of GEOMETRY.

SECT. I.
Of Lines.



N Consideration of the great Use as Geometry is of to Gardeners, in furnishing them with excellent Rules for their sure and speedy Execution of Surveys, Measures, Levels, Drawings, Working, &c. therefore I have first laid down all the most useful Principles thereof, and in a very concise and familiar Manner.

B

PRO.

New Principles of Gardening.

PROBLEM I.

Fig. I.

FROM a given Point (m), to draw a Right Line (ez) parallel to the Right Line cb .

DEFINITION I. A Point in Practice is understood to be the least superficial Appearance, as can be made by the Point of a Needle, Pin, Pen, &c.

DEFINITION II. A Right Line is the nearest Distance between its two bounding Points, as cb .

DEFINITION III. Parallel Right Lines are those which do not incline towards one another; and therefore if infinitely continued, would never meet, as ea and cb .

PRACTICE. Take the nearest Distance from the Point m , to the Line cb , as mo , and on any Part of the Line cb , as at f , describe an Arch as bb ; then by laying a Ruler from m to the Edge or Convexity of the Arch bb , you may draw the Parallel required. For by the first, ad is equal to ae , dg equal to ge , and ag is common to both; therefore ae is parallel to be . *Q. E. D.*

PROBLEM II.

Fig. I.

FROM a Point given (a), to draw a Line (ae) equal to the given Line dg .

PRACTICE. From a draw ae parallel to dg , and join the Points, ad from the Point g draw ge parallel to ad , and the Line ae will be equal to dg . Because in the Parallelogram de , the opposite Sides ae is equal to dg . *Q. E. F.*

PROBLEM III.

Fig. III.

A Right Line being given (ab) to cut off a Part (af), equal to the Right Line dc .

PRAC-

PRACTICE. From a draw an at pleasure, and longer than dc . On a , with the Interval dc , describe the Arch ef ; then shall the Line fa , be equal to cd ; because fa is equal to (ae and) cd . Q. E. D

P R O B L E M IV.

TO make an Angle (abc) equal to an Angle given, Fig. IV.
(def)

DEFINITION I. An Angle (called in *Latin Angulus*) is the Corner (d), that is made by the Meeting of Lines, as fd , and de , &c. which Angle is greater or less, according as the Lines lean nearer, or stand further off from one another: So the Lines id and ed make an Angle lesser than the Lines ed and fd , and the Lines bd and ed greater than ed and fd , which is called their Inclination. Therefore, when several Lines have the same Inclination, they make equal Angles.

DEFINITION II. Angles are either right-lined, as i ; spherical or curved, as k , or mix'd, as l . When an Angle is mentioned by three Letters, the second or middlemost Letter always denotes the Angle or Angular Point: So a denotes the Angle bac , or cab , &c.

PRACTICE. Make ac equal to df . With any Interval, as df on d describe fe , and on a , with the same Opening the Arch cb , make cb equal to fe , and draw ab : So shall the Angle abc be equal to the given Angle def , because the Triangle abc is equal-sided to the Triangle def . Q. E. F.

P R O B L E M V.

TO divide an Angle given (a) into two equal Parts. Fig. V.

PRACTICE. On a , with any Interval, describe the Arch bc , and with the same Opening on b the Arch ff , and on c the Arch ee , crossing in d : Join db and dc , and draw da , which shall divide the Angle a in two equal Parts. For the Triangles abd and

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and acd are equal-sided, being Radius's of equal Circles, and ad common. Therefore the Angle cda is equal to the Angle bda . Q. E. F.

P R O B L E M VI.

Fig. VI.

FROM a given Point (a or h) to let fall or raise a Perpendicular (ah .)

DEFINITION I. *Perpendicularum*, or Perpendicular, (from the Latin, *perpendo*, to hang down,) is a Right Line falling upon a Right Line with equal Inclinations, (as ba on bc ,) where the Angles on each Side (bab and bac) are equal to each other; and therefore are called Right Angles.

PRACTICE. With any Interval make ac equal to ab , and with the Distance bc on b describe the Arch ee , and on c the Arch ff , crossing at h , join ba , and 'twill be the Perpendicular required; for hb is equal to hc , and ab to ac , and ba common. Therefore the Angles at a are equal and right-angled, and ab perpendicular. Secondly, on b , with any Interval, describe the Arch bc , join bc and bb ; divide the Angle cbb , (by the preceding Problem,) and the Line ba is the Perpendicular required: For the Angles at a may be proved to be Right Angles, as before. Therefore, &c. Q. E. F.

Fig. VIII.

To let fall a Perpendicular from a Point, as at i , over or near the End of a Line, draw a Right Line (ino) from the given Point (i) to any Part of the given Line, as to o , which divide into two equal Parts at n , and on n describe the Semi-circle ilo , draw il the Perpendicular required. Q. E. F.

To raise Perpendiculars at the End of a Right Line, take the following Ways, viz.

First, From a raise the Perpendicular ag .

PRACTICE. With any Interval on a describe an Arch, as (ycd), make yc and cd each equal to ayd ; and with the same Opening on c describe the Arch dd , and on d the Arch cc , crossing the other in f , draw ga through f , the Perpendicular required.

Secondly, From b raise the Perpendicular bp .

PRACTICE.

New Principles of Gardening.

5

PRACTICE. With any Interval on b describe the Arch ilz , make il equal to bi , and with the same Opening on l describe the Arch $imno$, make io equal to thrice bi , draw ob , and 'twill be the Perpendicular required.

Thirdly, From q raise the Perpendicular qv .

Fig. VIII.

PRACTICE. With any Interval of your Compasses place down at a Venture one Foot thereof as at s , and with the other describe the Arches xx and ww ; lay a Ruler from r to s , and 'twill cut the Arch ww in t ; join tq , and 'tis the Perpendicular required.

Fourthly, From a , Fig. VIII. raise the Perpendicular ac .

PRACTICE. Draw a Right Line, as de , and open your Fig. IX. Compasses to any small Distance, as from 1 to 2, and thereon prick off ten of those Divisions: Take eight of the said Divisions, and place it from a to b , with the Interval of 6 on a ; describe the Arch ff , and with the Interval of 10 on b , the Arch gg , crossing the former in c ; join ca , and 'tis the Perpendicular required.

When Perpendiculars are to be raised from an Angular Point, (as nm from n ,) open your Compasses to any Interval, as nb , and on the Angle n describe an Arch, as gb ; then opening your Compasses to any greater Distance, as go , on g describe the Arch rr , and on b the Arch oo , crossing the former in m ; draw nm , and 'tis the Perpendicular required.

P R O B L E M VII.

TO divide a Right Line into two equal Parts, by a Right Fig. VII. Line, as ab by nm .

PRACTICE. On a , with any Interval greater than ai , describe an Arch, as dd , and with the same Opening on b , the Arch cc , crossing the first in nm ; from which Points draw the Line nm , and 'twill divide ab in the Middle; for nb is equal

equal to the Radius of na and ni common, and the Angles at i right-angled; therefore the Side ai is equal to ib . Q. E. F.

PROBLEM VIII.

TO divide any Line (as ab) in a given Proportion, as ca, ce .

Fig. X. PRACTICE. ab, ac , being drawn at any Angle, draw the Right Line bc , and draw ed parallel to it; therefore, as ba is to da , so is ca to ea . Q. E. F.

PROBLEM IX.

Fig. X. **T**O find a fourth Proportional (bd) to three given, viz. $ae : ec :: ad : db$.

PRACTICE. Join ed , and draw cb parallel, and continue ad to b , and db is the fourth Proportional required; for as ae is to ec , so is ad to db . Q. E. F.

PROBLEM X.

TO find a third Proportional (nm) to two given, (zy, yx .)

Fig. XI. PRACTICE. Make zn equal to zy at any Angle, and join yn . Continue zn infinitely, and from x draw the Parallel xm ; mn is the third Proportional: For, as zy is to yx , so is zn to nm . Q. E. F.

PROBLEM XI.

Between two given Lines (ik, no) to find a mean Proportion (ch .)

DEFINITION. A mean proportional Line, is such a Line, whose Length being multiplied into it self, its Product is equal to both the Products of the other two Lines between which it is a mean Proportional.

PRACTICE. Make db equal to ik and no , make dc equal to no ; and from c , raise the Perpendicular cb . Bisect db in a , and on a , with the Interval ad , or ab , describe the Semicircle dbb , cutting the Perpendicular in b ; bc will be the mean Proportion. For, (bb , bd , being joined) the Angle bbd is right-angled. Therefore bc is the mean Proportion between cb and cd . Q. E. F. Fig. XII.

P R O B L E M XII.

TO divide a Right Line (bf) in extream and mean Proportion.

DEFINITION. A Right Line is said to be divided in extream and mean Proportion, when the Whole is to the greatest Segment, as the greatest Segment is to the Lesser.

PRACTICE. Make wv equal to bf , and bisect wv by xh , in r ; through h and x draw st and zy parallel to wv ; and through w and v the Lines ty , and sz parallel to hx ; on t , with the Interval ty , describe the Arch $ynos$, cutting hx in n , and wv in o . Draw ob , and on b with the Interval bo , cut bx in a , so shall ba be the greater Segment, and ax the lesser; and consequently bx is thereby divided in extream and mean Proportion. Let xo be drawn, and with that Interval on x , describe the Arch oc , and on b the Arch oa , and draw the Right Lines oa and oc ; then will the Angle bco be equal to the Angles cxo , and xoc ; because these two Angles are within, the other without the Triangle cxo . Likewise the same Angle bco is equal to the Angles oac and aoc and oca equal to xoc ; also the Angles oxc and coa are equal to each other. Therefore the Triangles xoc , and aoc , have two Angles equal to two Angles of the Triangle coa , and therefore equal-angled. For as ox or ob is to oc , so is oc , or oa , to ac . Therefore oc or oa is a mean Proportional between bo and ca . On the Right Lines ox , ob , make bd and xe , equal to bc , and join de and dc ; then will do and oe be equal, and de parallel to bx , and consequently the alternate Angles dea , xae , and eda , bcd , are all equal to each Fig. XIII.

each other, and the Rhombus $xeda$ equal to the Rhombus $bd ec$. Therefore the Lines xe , ec , da , db , bc , and oa , are equal to one another. And as 'tis plain, that oa is a mean Proportional between ba and ca , so likewise is xa (equal to oa) a mean Proportional between ba and ca ; for 'twill be, as ba to ax , so ax to ca ; and being compounded, as ba more ax , (that is, bx), to xa more ac , (that is, xc or ba), so likewise is ba to bc ; therefore bx is divided in c and a ; so that the whole Line bx , a Part ba , and the remaining Part bc , likewise xh , a Part xc , and the remaining Part xa , are continual Proportionals. Therefore ba (that is, bo) is the greater Segment of the Right Line bx , divided in extrem and mean Proportion. Q. E. D.

N. B. Those Segments may also be found as follows: Continue xh to k , making hk equal to hr ; on k , with the Interval kv , describe the Arch vao , which will cut bx in a ; so will ba be the greater Segment. Q. E. F.

PROBLEM XIII.

Fig. XIV. **T**O find the Center of an Arch (or Circle) given (ghi) or to describe a Circle, whose Circumference shall pass through three Points given.

PRACTICE. Join any two, as hg and hi , bisect each by Perpendiculars, crossing in n , which is the Center; for each Perpendicular is a Diameter, and consequently the Center must be where they intersect.

PROBLEM XIV.

Fig. XV. **T**O draw a Tangent (nh) from a Point given (h)

DEFINITION. A Tangent (comes from the Latin Word *Tango*, to touch) is a perpendicular Right Line without a Circle falling upon the End of the Diameter, as nb .

PRACTICE. Draw a Right Line from h to the Center k , bisect hk in i , and thereon describe the Semicircle knh , cutting

ting the Circle in n ; join nk , nb , so shall nb be the Tangent required. For the Angle knb is right-angled. Q. E. F.

P R O B L E M X V.

TO cut off a Segment (os) from a Circle given, that may receive an Angle equal to an Angle given, viz. sno equal to the given Angle t . Fig. XVI.

DEFINITION. A Segment (*Latin*, from *seco*, to cut) of a Circle, is a Figure contain'd between a Right Line and any Part of the Circumference of a Circle, as oxs , or $sw o$.

PRACTICE. By the preceding draw the Tangent rm , touching in o , making the Angle ros equal to t ; therefore the Angle sno (in the opposite Segment) is equal to t , so that $sw no$, is the Segment required.

P R O B L E M X VI.

TO divide a Right Line (za) into any Number of equal Parts, (suppose six.) Fig. XVII.

PRACTICE. Draw a Line at Pleasure, as rs , and thereon prick off six equal Divisions of any Size, as those at 1, 2, 3, 4, 5, 6. On s , with the Interval rs , describe the Arch xx , and on r the Arch oo . From b , the Point of Intersection, through r , 1, 2, 3, 4, 5, s , draw Right Lines infinitely; make bb and bi equal to za , and join bi ; then will bi be divided into six equal Parts by the Lines bn , bn , &c. Q. E. F.

P R O B L E M X VII.

TO divide a Right Line (zn) in such Proportion, as another is before divided, (as ab .) Fig. XVIII.

PRACTICE. Draw a Line at Pleasure, as rs , on which prick off the several Distances or Divisions of ab , as $a1$, 1, 2, 2, 3, 3, 4, 4; at the Points nn , &c. make st and rt equal (by the preceding,) and from t through the Points nn , &c. draw

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draw Right Lines infinitely, make tq and tw equal to zn , and draw qw ; then will qw (which is equal to zn) be divided in such *Proportion* as ab . Q. E. F.

P R O B L E M XVIII.

TO describe *Spiral or Serpentine Lines*, either *single, double, treble, or quadruple*.

Single Spi-
ral Line.
Fig. XIX.

PRACTICE. (1.) Draw the Line 1, 2, at Pleasure, and bisect it in y , on which, with half the assigned Distance of the Line, (suppose ax ,) describe the Circle vw , and bisect vy and yw in z and x , which are the *two Centers* on which the Line is described, as follows: On x describe vt , on z , ts , on x , sq , and on z , qr , &c. and so in like manner, you may turn the said *Line* about, as often as required.

Double Spi-
ral Line.
Fig. XX.

(2.) Draw the Line 3, 4, at Pleasure, and bisect it in y , and, as in the preceding, describe the Circle rw , and its *Centers* x , z , which being done, on the *Center* x describe wq , and on z describe rv ; also on x , up , and on z , qt , and ps , and, so in like manner, on x , the Arches to and sn , &c.

Treble Spi-
ral Line.
Fig. XXI.

(3.) Make the *Equilateral Triangle* abm , with its Sides, equal to the given Line xa , and by PROB. V. divide all the *Angles*, and draw the Lines, ai , fw , bj , $i8$, $m9$, and $o10$. On m with the *Radius* mb , describe the Arch bc , on a the Arch me , and on b the Arch ad ; then on o , with the Interval oc , describe the Arch cg , on f the Arch el , and on i the Arch dn . Again on a , with the Interval ag , describe the Arch gh , on b the Arch li , and on m the Arch nv ; then beginning again at o , with the Interval ov , describe the Arch vx , on a the Arch xy , and on f the Arch yz , &c. and the like of others, to any Number of *Revolutions* required.

Quadruple
Spiral Line.
Fig. XXII.

(4.) Draw a Right Line at Pleasure, as gs , and bisect it by the Line io , and draw dc and ab , as also bc and ad , parallel to the Lines io , and sg , at the given Distance of the Lines 5, 6, intersecting each other in $abcd$, the *Centers*; on which the Lines are describ'd, as follows, *viz.* on d describe the Arch hi , on a the Arch zy , on b , nm , and on c , op ; then beginning again at d , describe yk , at a , nl , at b , pq , and at c , pf ; and so in like manner may be continued about to any Number of *Revolutions* required.

P R O B-

PROBLEM XIX.

TO describe a serpentine Line about an Ellipsis.

Fig.XXIII.

PRACTICE. By PROB. IX. SECT. II. describe the *Ellipsis* *abcd*, according to its *Diameters* given, and extend out the Lines *eg*, *eh*, and *fg*, *fh*, infinitely: Divide *fb* into four equal Parts, and make *fi*, *bk*, *gl*, and *em*, each equal to one Fourth of *fb*, which Points *i*, *k*, *l*, *m*, are the four *Centers* on which the Line is described as following, *viz.* On *l* describe the Arch *np*, on *i* the Arch *po*, on *k* the Arch *ov*, on *m* the Arch *vw*, on *l* the Arch *wx*, and on *i* the Arch *xg*, and so (as before in the *circular Spirals*) this may be continued about as often as required.

PROBLEM XX.

TO describe with Compasses, &c. any rural or irregular Curved Line, as *zwm*.

Fig.XXIV.

PRACTICE. First, with a Pencil trace out the Line, and at every *Turning*, as *w*, *i*, *b*, make a Point. Secondly, in every such *Division* assume another Point, as *r*, and by PROB. XIII. hereof describe the Arch *zrw*, and then proceed in like manner to find the *Centers* of the Arches *wi*, *ib*, &c. till the whole Line is described as required.

SECT. II.

Of Superficial Figures.

SUPERFICIAL FIGURES, necessary to be understood by Gardeners, &c. are the Circle, Ellipsis, Triangle, Square, Parallelogram, Pentagon, Hexagon, Septagon, Octagon, Nonagon, Decagon, &c. whose Definitions and Constructions are as follows.

C 2

PRO-

P R O B L E M I.

Fig.XXV. **T**O describe a Circle of any possible Magnitude required.

DEFINITION. (1.) A CIRCLE is a *plain Figure*, bounded with one *Line*, called the *Circumference*; in the *Midst* whereof is a *Point*, from whence all *Lines* drawn to the *Circumference* are *equal*, which *Point* is called the *Center thereof*, as *a*. (2.) The *Diameter* of a *Circle* is a *Right Line* (*bc*) passing through the *Center a*, terminating at each *End* with the *Circumference*, and dividing the *Circle* into two equal *Parts*. (3.) The *Radius* of a *Circle* is the *Semidiameter*, as *ba*, or *ac*. (4.) A *Semicircle* is the *Figure* (*bnc*) contain'd between the *Diameter* and half the *Circumference*. (5.) A *Segment* of a *Circle*. Vide PROB. XV. SECT. I.

PRACTICE. A CIRCLE is usually described by the Revolution of a *Right Line*, having one of its *Ends* fix'd on the *Center*, while the other revolves round the same; as if *db* was fix'd at *b*, (as the *Joint* of a *Sector*, *Two-foot Rule*, &c.) and to be moved from *d* to *l*, to *n*, to *v*, and to *d*, its former *Position*, the *End* of the *Line d* would describe the *Circumference*, and the *Line* the *Circle* itself. When a *Circle* is described by *Compasses*, the *Distance* between the two *Points* or *Legs* thereof, is to be considered as the *Radius* or *Right Line* aforesaid. It often happens, that *Circles* are required to be described where 'tis not possible for the *Radius* to move round its *Center*, as before; and therefore at such *Times* observe the following Rule:

Fig.XXVI. How to describe a CIRCLE without the Center being known; Let *dbg* be the given *Diameter*, which bisect in *b*, and thereon raise the *Perpendicular bl*, which make equal to *bd*. Continue *bd* towards *f*, and make *fd* equal to two *Sevenths* of *db*; on *b*, with the *Interval bf*, describe the *Arch fm* at Pleasure, make *bv* equal to *bl*, or *bd*; on *d*, with any *Interval* greater than half *dl*, describe the *Arches kk*, *ss*, on *l*, the *Arches ii*, and draw *hb*, cutting the *Arch fm* in *a*; then with the *Interval dc*, or *la*, on *l* describe the *Arch oo*, on *n* the *Arches pp*, *rr*, and on *v* the *Arches qq*, *tt*, intersecting each

each other in the Points a, y, w, x ; join the Right Lines $al, ly, yg, gw, wv, vx, xd, da$, each of which divide into any Number of equal Parts, as 1, 2, 3, 4, 5, &c. Draw Right Lines from the Divisions of bd , to those of hl , from ly to those of yg , from gx to those of xv , and from vw to those of wd , and their Intersections will describe the Circle required. Q. E. F.

PROBLEM II.

TO divide the Circumference of a Circle into any Number of equal Parts, not exceeding ten.

Fig. XXVII.

PRACTICE. By the preceding describe the Circle $afcg$; draw the Diameter aec , and 'twill divide the Circle into two equal Parts; make ab and ad equal to ae , and draw bd , which will divide the Circle into three equal Parts; draw fg at Right Angles to ac , and join fa , which is the fourth Division; on a , with the Interval af , cut ac in i , and join fi , which shall divide the Circle into five equal Parts; the Radius ea, ec , &c. is the sixth Division, bb , or bd , is the seventh; draw ek through o , and the Line ak will be the eighth; one Third of the Arch bad , viz. dl , is the ninth, and ei the tenth Division. Q. E. F.

PROBLEM III.

TO divide the Circumference of any Circle into 360 equal Parts, or Degrees.

DEFINITION. A Degree is the three hundred and sixtieth Part of the Circumference of any Circle, (be it great or small;) each of those Degrees are divided into sixty equal Parts, called Minutes; and each of those into sixty Parts more, called Seconds; and so to Thirds, Fourths, &c. But such Subdivisions has no Place herein, any further than Minutes.

PRACTICE. Describe the Circle abc , draw the two Diameters ab and ec at Right Angles, and the Circle will be divided into four equal Parts; make ag, an , each equal to ad ,

Fig. XXVIII.

as

as also cm , ck , bl , bh , ei , and ef , then will the *Circumference* be divided into *twelve* equal Parts, each containing *thirty Degrees*: Divide af , am , &c. each into three equal Parts, and then will the *Circle* be divided into thirty six, each containing ten Degrees. Lastly, divide each of those Divisions into ten equal Parts, by the preceding PROBLEMS of SECT. I. and the *Circumference* will be divided into *three hundred and sixty equal Parts*, as required. Q. E. F.

PROBLEM IV.

TO find the Center of a Circular Arch, and the whole Diameter of the Circle, of which the given Arch is a Part or Segment.

Fig. XXIX. PRACTICE. Let abc be the *Circular Arch* given; assume three Points therein, as a , b , c , and by PROB. XIII. SECT. I. find the Center, &c. Q. E. F.

PROBLEM V.

A Circle being given, to find its Center.

Fig. XXX. PRACTICE. Let abc be the *Circle* given; assume therein three Points, as a , b , c , and by PROB. XIII. SECT. I. find the Center, &c. Q. E. F.

PROBLEM VI.

TO describe an Ellipsis ($aclbkh$) to any Length given, ($acdb$.)

Fig. XXXI. DEFINITION. An ELLIPSIS (*Greek*) is a Geometrical Figure, comprehended in one only Line, but that not circular, nor having all its Parts equally respecting the Center, but two *Focus Points*, as c , d .

An ELLIPSIS is generated by an *oblique Section* of a *Cone*, and is to be described divers Ways, as following:

PRAC-

PRACTICE. Divide ab , into three equal Parts, at c and d , with the Interval ac ; on c describe the Circle $aedh$, and on d the Circle $lbkc$; from o , through c and d , draw odl , and oce ; also from n , through d and c , draw ndk , and nch ; extend your Compasses from n to b , and describe the Arch hk , and with the same Distance on o the Arch el ; and thus is the *Ellipsis compleated* as required.

PROBLEM VII.

TO describe an *Ellipsis* a different Way from the preceding.

PRACTICE. Divide the Diameter xy into four equal Parts at eim , with the Radius xe ; on e describe the Circle exi , and on i the Circle $ienm$, and on m the Circle miy ; at i draw nf at Right Angles to xy : From f , through e and m , draw the Right Lines fmb , and fea , also from n , through e and m the Lines nmd and nec : With the Interval fg , on f describe the Arch gnh , and on n the Arch wfk , and the *Ellipsis* will be compleated as required.

Fig.
XXXII.

PROBLEM VIII.

TO describe an *Ellipsis* according to any Length and Breadth given, as h and i .

Fig.
XXXIII.

PRACTICE. Make ad equal to b , bisect ad in g by ef , at Right Angles; make fe equal to i , and fc , fb , or ec , eb , equal to gd or ga ; so shall bc be the Umbilque, or two Focus Points; upon which two Pins, Nails, &c. being fasten'd, and about them put a String, whose Ends fasten together in the Point e , this String being moved about the two Pins with a Blacklead Pencil, &c. will describe the *Ellipsis*, whose Length and Breadth shall be equal to the two given Lines hi . Q. E. F.

P R O-

PROBLEM IX.

TO describe the same Ellipsis a different Way.

Fig.
XXXIV.

PRACTICE. Make al and mb equal to s and t at Right Angles, as in the preceding; make lx and ay each equal to hb , or bm ; divide xb into three equal Parts, and make xi equal to one of those Parts; make hc equal to bi ; with the Interval ic , on i describe the Arches tt and ww , and on c the Arches vv and zz , intersecting the former in g and f ; from f , through i and c , draw the Right Lines fi and fc , and from the Point g the Right Line gc , and gi ; On c , with the Interval ca , describe the Arch oao , and on i the Arch dld ; extend your Compasses from f to m , and on f describe the Arch omd , as also on g the Arch obd , which will compleat the Ellipsis as required.

PROBLEM X.

TO find the Center and two Diameters of any Ellipsis.

Fig.
XXXV.

PRACTICE. Within the Ellipsis draw at Discretion two parallel Right Lines, as ef and gh ; bisect these Parallels in i and k , and draw the Right Line ik , which bisect in l , the Center of the Ellipsis; whereon with any Radius describe a Circle, as mno , intersecting the Ellipsis in p and q ; join pq , and bisect it in r , and draw rl to t and s , which is the longest Diameter; through l draw ed , parallel to pq , and 'tis the lesser Diameter. Q. E. F.

PROBLEM XI.

TO describe an Ellipsis according to any Length and Breadth given, without knowing the Focus Points, or by Segments of Circles, as by the preceding Problems.

Fig.
XXXVI.

PRACTICE. Let dc be the longest Diameter, and ab the shortest; at the Distance of hb draw fi and eg parallel to cd , and ef and gi parallel at ab , at the Distance of hc , cutting

ting the former in *efgi*. Divide *ae*, *ag*, *bf*, *de*, *df*, *cg*, and *ci*, each into equal Number of Parts; the more, the more exact; draw Right Lines from the Divisions of *ae*, to those of *ed*, &c. as by PROB. I. hereof, and their Intersections will describe the Ellipsis required. Q. E. F.

Note, That the longest Diameter of an Ellipsis is called, the Conjugate; and the shortest, the Transverse Diameter.

PROBLEM XII.

TO describe a Figure, call'd an Egg Oval, equal to any Breadth given, as *hn*.

PRACTICE. Make *ac* equal to *hn*, and bisect *ac* in *b*; whereon, with the Distance *ab*, describe the Semicircle *adc*; on *a*, with the Interval *ac*, describe the Arch *ce*, and with the same Opening on *c*, the Arch *af*, crossing the former in *g*, completing the Oval required. Q. E. F.

Fig:
XXXVII.

N. B. That the Figure thus describ'd, is vulgarly called an Egg Oval, tho' in fact, it is not; because the Arches *ce* and *af* intersect each other, and constitute an Angle at *g*, which is contrary to the Curvature of an Ellipsis. Therefore to describe an actual Egg Oval, proceed as follows, viz. Having described the Figure according to the preceding Way, draw the Line *bg*, which divide in *l*. On *l* with the Opening *lg*, describe the Arch *ogh*, and on *g* the Arch *plk*, intersecting the former in *r* and *i*. Lastly draw *li*, cutting the Arch *ce* in *m*, *lr* cutting the Arch *af* in *s*, and on *l*, with the Opening *lm*, describe the Arch *mzs*, which will complete the true Egg Oval, as required.

PROBLEM XIII.

TO describe an Equilateral Triangle.

DEFINITION. A Triangle is a plain Geometrical Figure, bounded with three Sides, constituting three Angles, and therefore

fore called a Triangle. When a Triangle hath all its Sides equal, 'tis called an *Equilateral Triangle*, as eab . That Triangle as hath two Sides equal, and the third unequal, is called an *Isoceles Triangle*; and that Triangle whose three Sides are unequal, as boi , is called a *Scalenum Triangle*.

Note, That what is here delivered in relation to the Names of Triangles, is only with respect to their Sides; therefore, when Triangles are mentioned with regard to their Angles, they are distinguished as following, *viz.* A *Right-angled Triangle*, is that which has one Right Angle and two Acute Angles, as ghl right-angled at g , and acute-angled at h and l . All Angles are measured by an Arch of a Circle, whose Center is the Angular Point; and the Number of Degrees contained in such an Arch, is the Quantity of the Angle.

If the Quantity of the Angle is ninety Degrees, as the Angle 1, 2, 5, 'tis called a *Right Angle*; and when less than ninety Degrees, 'tis called an *Acute Angle*, as the Angle 3, 2, 4; but when the Angle is greater than a Right Angle, containing more than ninety Degrees, such an Angle is called an *Obtuse Angle*.

Figg.
XXXVIII.

An *Amblygonium Triangle* is that as hath one Obtuse Angle, and two Acute Angles, as boi . An *Oxigonium Triangle* is that as hath all its Angles acute, as abb . In every plain Triangle, the Sum of the three Angles are always equal to 180 Degrees. In every Triangle, any two of the Lines being taken for two Sides, the other remaining (be which it will) is called the *Base*; therefore any Side of a Triangle may be made the *Base*.

In all right-angled Plain Triangles, that Side as is opposite to the Right Angle, is called the *Hypothenuse*, and the other two Sides its *Legs*; and sometimes one of the Legs is called the *Base*, and the other (*Cathetus*, a Greek Word for) Perpendicular.

PRACTICE. Make eb equal to fg , and on e and b , with the Interval fg , describe the Arches 1, 1, and 2, 2, crossing in a ; join ab and ae , the Triangle required; for as ab , be , and ea , are Radius's of equal Circles, therefore the Triangle is Equilateral. Q. E. F.

PROBLEM XIV.

TO make an *Isocetes* and *Scalenum Triangle*.

Fig.
XXXIX.

PRACTICE. (1) Draw zx equal to v , and with the Interval w , describe Arches crossing in y ; join zy , yx , and 'twill complete the *Isocetes Triangle* required.

(2) Draw np equal to l , and with the Intervals mc , on p and n describe Arches crossing in o ; join no , and op , and the *Scalenum Triangle* will be completed as required. Q. E. F.

PROBLEM XV.

TO describe a Geometrical Square on a given Line, (zx .)

DEFINITION. A GEOMETRICAL SQUARE, is a Figure which Fig. XL, hath four equal Sides, and the Angles right, as $nmzx$.

PRACTICE. From x erect a Perpendicular xm , equal to zx , and on m and z , with the Interval zx , describe Arches crossing at n , join nz and nm . Q. E. F. For zx is equal to xm , equal to mn , equal to nz , and mz is common; therefore the Triangles xmz , and mnz , are equal angled; therefore the Angle x is equal to the Angle n ; but the Angle xmz is equal to the Angle xzm , and nmz equal to $nz m$, each equal to forty five Degrees; therefore m and z are right-angled, and the opposite Sides are parallel. Q. E. D.

PROBLEM XVI.

TO describe a Parallelogram ($zxy n$.) equal in Length and Breadth, to two given Lines, p , q .

DEFINITION. A PARALLELOGRAM is a Quadrilateral Figure, Fig. XLI, whose opposite Sides are parallel; from the Words *Parallel* and *Gramma*, a Figure or Letter.

New Principles of Gardening.

PRACTICE. Draw zx equal to p , and erect the Perpendicular xy equal to q , with the Intervals q and p , on z and y describe Arches crossing in n ; join ny and nz , and the Parallelogram will be completed. Q. E. F.

PROBLEM XVII.

TO describe a Rhombus on a given Line xy .

Fig. XLII.

DEFINITION. A RHOMBUS is a Geometrical Figure of four equal Sides, but the Angles are unequal; two opposite ones being Acute, and the other two Obtuse: 'Tis called *Rhombus*, from the Greek Word *Rhumbos*, a Fish, called the Turbot, or Glass Quarrels in a Window.

PRACTICE. On y , with the Interval xy , describe the Arch xzn , make xz and zn equal to xy , and join xz , zn , and ny , the *Rhombus* required. Q. E. F.

PROBLEM XVIII.

TO describe a Rhomboides, equal to the given Lines a and n and Angle m .

Fig. XLIII.

DEFINITION. A RHOMBOIDES is of the same Derivation as the *Rhombus*, and is a Figure between a *Parallelogram* and a *Rhombus*; from the one it takes its Correspondency of Sides, from the other Proportion of Angles, and therefore is called a *Rhomboides*.

PRACTICE. Draw bf equal to n , and (by PROB. IV. SECT I.) the Angle dfb equal to m , making fd equal to a ; on b and d , with the Intervals an , describe Arches crossing in c , join cd and cb , the *Rhomboides* required. Q. E. F.

PROBLEM XIX.

TO describe a Trapezia, equal to the given Lines $abcd$ and Angle e .

DEFI.

DEFINITION. The Word *Trapezia* seems to come from the Fig. XLIV. *Greek Trapeza*, a Table: 'Tis an irregular Geometrical Figure of four unequal Sides, were neither the Sides nor Angles equally correspond.

PRACTICE. Draw fg equal to d , and the Angle fgi (by PROB. IV. SECT. I.) equal to e , and make gi equal to c ; on f and i , with the Intervals b and a , describe Arches crossing in h ; join hi , and hf , the *Trapezia* required. *Q. E. F.*

P R O B L E M XX.

TO frame or make a regular Pentagon upon a Line given.

DEFINITION. A PENTAGON (*Greek*, from *Pente*, five, and Fig. XLV. *Gonia*, an Angle,) is a Geometrical Figure of five Angles, and all equilateral, and thereby its Sides are all equal, as the Figure $ac b d e$.

PRACTICE. Divide ed in the Middle at n , from which erect the Perpendicular nb , equal to ed , extend be to f , so that ef may be equal to en ; upon the Base ed , make the Triangle dce , each Side equal to bf ; on c and d , with the Interval ed , describe Arches crossing in b ; as also with the same Interval on e and c , describe Arches crossing in a ; join ea , ac , cb , and bd , and the Pentagon will be compleated as required. *Q. E. F.* *Pentagons* may be described by PROB. II. hereof. By describing a Circle, and dividing its Circumference into five equal Parts, (as there shewn,) and then to draw Lines from one Division to another, will frame a Pentagon as required.

P R O B L E M XXI.

TO make a regular Hexagon on a Line given, (d.e.)

DEFINITION. A HEXAGON is a Geometrical Figure, consisting of six Angles, from *Hex*, six, and *Gonia*, an Angle.

Fig. XLVI. PRACTICE. On *de* (by PROB. XIV. hereof,) make the Equilateral Triangle *dbe*, and on *be* the Equilateral Triangle *bfe*, and on *bf* the Triangle *baf*; continue *eb* to *b*, and *fb* to *c*, making *bc* equal to *fb*, and *bb* equal to *eb*; lastly, join *ab*, *bc*, and *cd*, and the Hexagon will be compleated as required. Q. E. F.

PROBLEM XXII.

TO describe a Heptagon on a given Line (HI.)

DEFINITION. A HEPTAGON is a Geometrical Figure of seven Angles, from the Greek *Hepta*, seven, and *Gonia*, an Angle,

Fig.
XLVII.

PRACTICE. Bisect HI in C, and from thence raise the Perpendicular CM; with the Interval HI, on I describe the Arch 1 2 3 4 5; divide this Arch into six equal Parts, and make AB equal to A 1; on B, with the Radius BI, or BH, describe the Circle ICH m ; lastly, take the Line HI in your Compasses, and set off that Length from H to K, from K to L, from L to m , from m to N, N to O, and join the Right Lines KH, KL, L m , m N, NO, and OI, they will compleat the Heptagon required. Q. E. F.

PROBLEM XXIII.

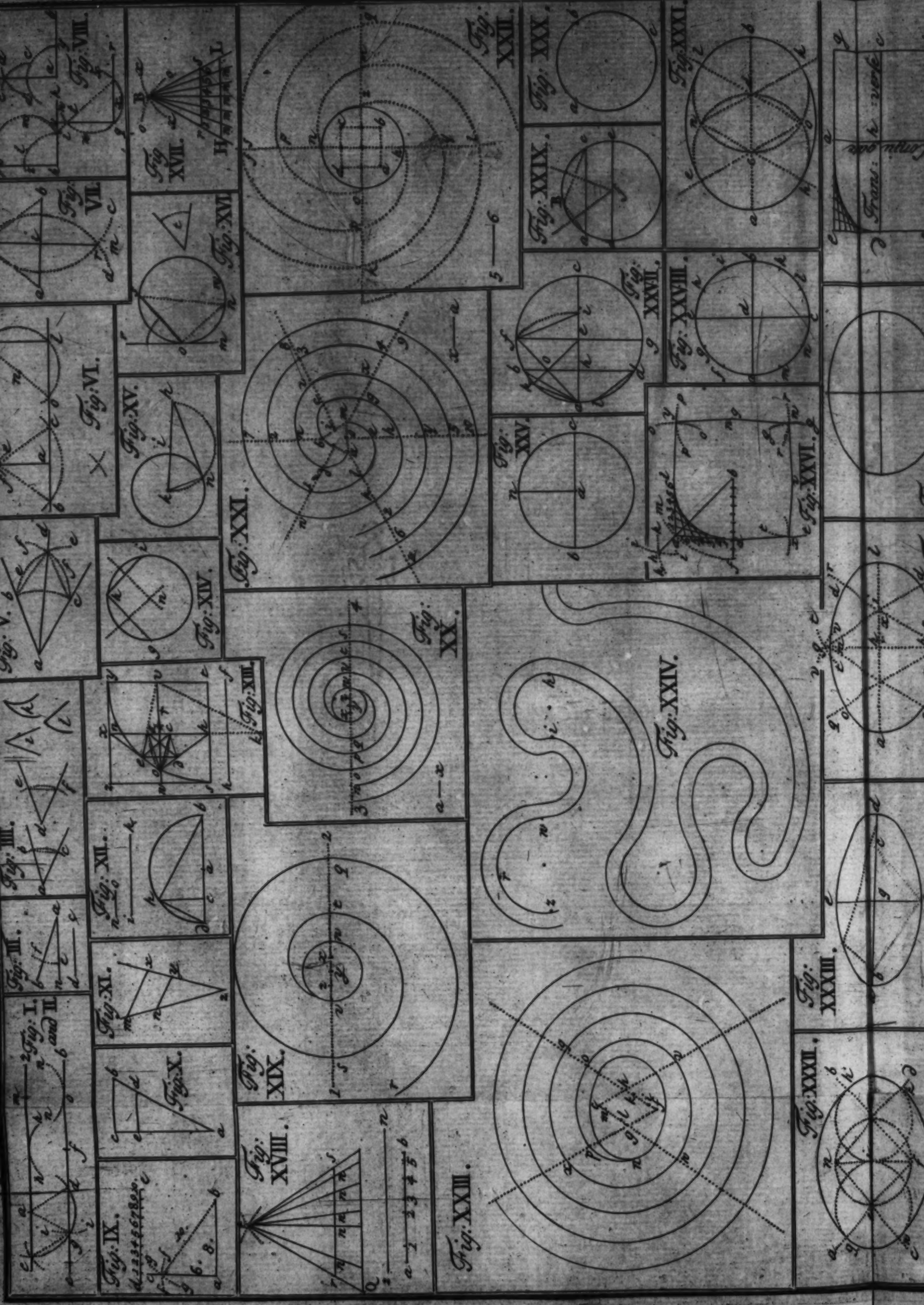
TO describe an Octagon, whose Sides shall be each equal to a given Line (EC.)

DEFINITION. An OCTAGON is a plain Geometrical Figure, consisting of eight equal Sides and Right-equal Angles, from *Octo*, eight, and *Gonia* an Angle.

Fig.
XLVIII.

PRACTICE. Bisect ED in C, whereon raise the Perpendicular cn ; on D, with the Interval DE, describe the Arch BE, which divide into six equal Parts, as before; make BA equal to two of those Parts, and on A, with the Interval AD, describe the Circle DEIFGHL m , wherein set round ED, eight Times, and drawing the Right Lines EI, IF, FG, GH,

Plate I. against page 23.



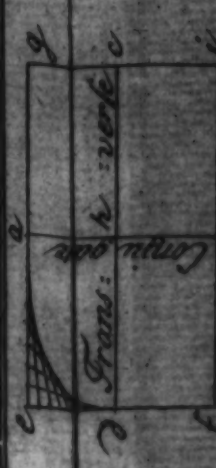
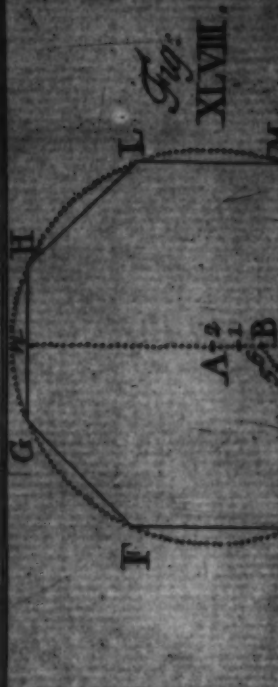
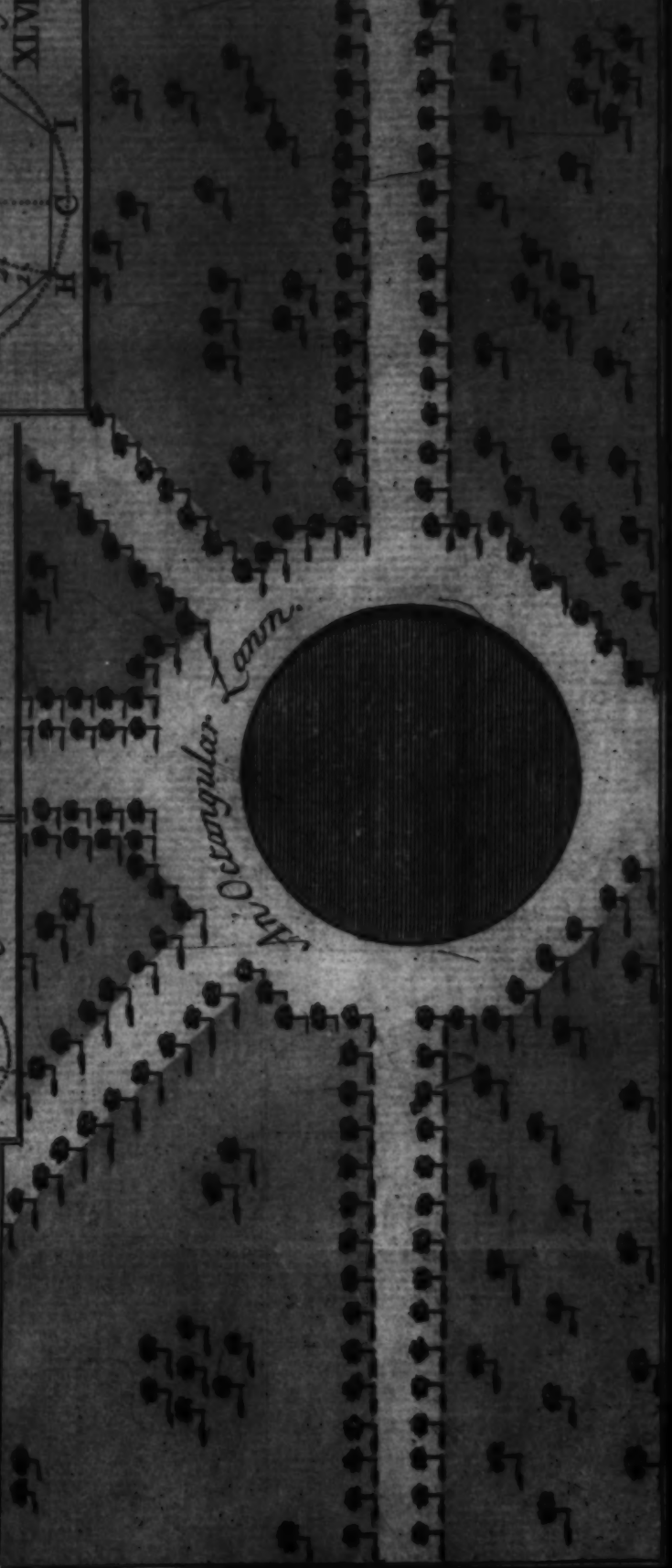


Fig. XXXVI.



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Angular Lamm.

Fig. XLIX.

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GH, HL, LM, and MD, will compleat the *Octagon* required. Q. E. F.

P R O B L E M XXIV.

TO describe a *Nonagon*, or *Enneagon*, whose Sides shall be each equal to a given Line, (DL)

DEFINITION. ENNEAGON, from the *Greek*, a Regular Polygon, or Geometrical Figure, consisting of nine equal Sides, and the like Angles.

PRACTICE. Bisect DL in C, and thereon raise the Perpendicular CH; on L, with the Interval LD, describe the Arch DB, which divide into six equal Parts, as in the preceding; make BA equal to three Parts of the Arch BD; on A, with the Interval AL, describe the Circle L, D, E, F, G, H, I, K, and therein set off the Distance DL, from D to E, from E to F, &c. Q. E. F.

Fig.
XLIX.

N. B. That the second Problem hereof may be used when 'tis required, to inscribe a regular *Polygon* within a Circle, &c.

N. B. That *Regular Polygons* of any Kind may be inscribed by the following Rule, viz.

Divide the Circumference of the Circle three hundred and sixty Degrees, by the Number of Sides in the Polygon, and the Quotient will be the Number of Degrees contain'd in each Side: As for Example,

Let the *Polygon* be a *Decagon*, which is a Geometrical Figure of ten equal Sides and the like Angles.

PRACTICE. Divide 360 by 10, the Number of Sides in the *Decagon*, 10) 360 (36, the Quotient or Number of Degrees contain'd in each Side as required.

Having now exemplified all the most useful Definitions and Problems absolutely necessary to be well understood by every good
GARDENER,

New Principles of Gardening.

GARDENER, I shall in the next Part lay down the true Management and Ordering of *Fruit* and *Forest Trees*, *Evergreen* and *Flowering Shrubs*; and although it may be expected that I should here lay down the *Division* and *Transposition* of *Geometrical Figures*, the *Trigonometrical Calculations* of *Triangles*, the *Mensuration* and *Division* of *Lands*, the Art of *Surveying* and *Levelling*, and divers other excellent Parts of *Mathematicks*, necessary and useful to *Gardeners*, yet in regard to the several *Improvements* and *Discoveries* I have made therein, which would have swell'd this Volume to a much greater Bulk and Price than intended; therefore I have reserved those Parts for a *second Volume*, which I shall communicate very speedily; wherein will be also contained, very great Improvements of such Gardens, as are situated on Hills, Flats, Valleys, &c. after a Method entirely new, advantageous, and noble.



NEW



N E W
P R I N C I P L E S
O F
G A R D E N I N G.

P A R T II.
Of FRUIT-TREES.

S E C T. I.

*Demonstrating the Variety of Gardens, their
Situation for Fruit, the Nature of Soils,
and their several Improvements by Manures.*



THE Productions of *Gardens* being greatly different, are therefore divided into divers *Classes*: As, First, the *Kitchen Garden*, whose Products is all Manner of *Sallets*, *Herbage*, *Roots*, &c. necessary for the *Kitchen*. Secondly, the *Fruit Garden*, which supplies the Table every Month in the Year, with
E the

best of Fruits. Thirdly, the *Flower Garden*, which gratifies the *Sight* and *Smell* with its *Flowers*. Fourthly, the *Market Garden*, which produces all Sorts of *Pulse*, as *Pease*, *Beans*, *Roots*, *Sallets*, *Herbage*, &c. (as the *Kitchen Garden*), for the Service of *Cities*, *Towns*, &c. Fifthly, *Nursery Gardeners*, or *Nursery Men*, who raise all Sorts of *Trees*, *Shrubs*, *Plants*, &c. for the Plantation of *Fruit Gardens*, *Parterres*, *Wildernesses*, *Groves*, &c. And Sixthly, the *Physick Garden*, wherein is cultivated all *Medicinal Plants* for *Physical Uses*.

These Varieties of Gardens affords no less Employment for *Gardeners*; and therefore they are distinguished according to that Part of Gardening in which they are employ'd, as the *Kitchen Gardener*, the *Fruit Gardener*, the *Flower Gardener*, or *Florist*, the *Market Gardener*, the *Nursery Gardener*, (or *Nursery Men*), and lastly the *Physick Gardener*; to which Variety may be added, the compleat *Groundworkman* and *Planter*, who *surveys*, *designs*, *lays out*, and *plants* Gardens in general.

I having in the preceding Parts exemplified the Manner of describing all Kinds of Geometrical Lines and Figures, absolutely necessary to be well understood by every Gardener, shall now proceed to Directions for raising and planting all Sorts of *Fruit*, *Forest*, and *Timber-Trees*, *Evergreens*, and *Flowering Shrubs*; as also the Time and Manner of *Grafting*, *Inoculating*, *Pruning*, *Nailing*, *Gathering*, and *Preserving* all the best Sorts of *Standard*, *Dwarf*, *Espallier*, and *Wall-Fruits*.

The first Thing to be considered for the Propagation of *Trees*, is the *Nature* and *Situation* of the *Soil*, wherein they are to be planted, as *Rapin* observes, Book iv. Page 178.

*Though to all Plants each Soil is not disposed,
And on some Places Nature has imposed
Peculiar Laws, which she unchang'd preserves;
Such servile Laws Great Britain scarce observes.*

The adapting of *Fruit-Trees* to their proper *Soils* they most delight in, causes them to thrive infinitely better, than if they were planted in a *Soil*, wherein they delight not.

All

*All Grounds not all Things bear : The Alder-Tree
Grows in thick Fens ; with Sallows Brooks agree ;
Ash craggy Mountains ; Shores sweet Myrtle fills.
And, lastly, Bacchus loves the sunny Hills.*

'Tis observable, that the Apple called the Kentish-Pippin, will thrive better in *Kent*, than any other kind of Apple ; as also Codlins, when in divers other Places, neither of those Fruits will thrive, but are soon destroyed by the Canker ; and even amongst Pear-Trees, I have observed, that Summer-Pears will thrive in Land, where Winter-Pears will not.

In order to attain the Knowledge of what Species of Fruits are most natural to the *Soil*, where we intend to raise or plant our Trees, I advise, that Observation be made of the different Growth of Trees in the neighbouring Parts, and of Experiments on Variety of Kinds planted in our own Garden.

*For various Plants, what Air and Soil is good ?
And that, which hurts them, must be understood.
Warm Air and Moisture is by Apples loved ;
But, if to stony Hills they are removed,
You must not blame them, if they then decay :
Through a crude Soil the Fig will make its Way.
If it be not exposed to the Rude North,
A humid Sand will make the Peach bring forth.
The Pear when it has Room enough to spread,
Where it has Warmth sufficient over Head,
If it be seconded by the wet Ground,
With swelling Fruits and Blossoms will be crowned.
The backward Mulberry chuses to be dry,
For constant Moisture is its Enemy ;
And a wet Soil the Apple vitiates ;
The Cherry deeply rooted, propogates
It self with Freedom, as in Italy
The thriving Olives every where we see.
A milder Ground the Lemon most desires :
One more severe the yellow Quince requires.
It is not fit that Apricots should stand
In a hot Mold ; and Cherries love not Sand,*

New Principles of Gardening.

*No more than Strawberries; which last if set
In Earth that's well subdued, if to the Heat
Of the warm Sun exposed, they soon abound
With Juice, their Berries then grow plump and round.
Those Hills, which favour BACCHUS, Lemons starve,
And Melons, which a gentler Clime deserve.
When a warm Situation Plums obtain,
They quickly recompence the Gardener's Pain.*

RAPIN, Book iv. Page 202.

The best Situations for Fruit-Gardens, are the *South*, and those as declines from the South towards the East, to forty five Degrees. An exact *East Wall* is not to be dispised; for though the Bud is checked or kept back in the Spring by the Easterly Winds, yet it has the Advantage of the whole *Anti-Meridian Sun* in *Summer* and *Autumn*, which disperfes the cold Dews early in a Morning, and by its Position, is defended from the South-West Winds that blows in the *Autumn*, oftentimes *destructive to Fruit*. Besides, the Fruit ripens very well, and oftentimes better than that of a South (Wall or) Situation; for the *Morning Sun* in the *Summer* is the very best; and although the Sun departs there, from about Eleven in the Morning, yet the Air being warmed by the Sun, is fully sufficient in the remaining Part of the Day, to preserve and continue the same Heat, without the Sun-Beams. The Accidents attending this Exposition, is the *North-East* and *Easterly Winds*, which blast *Peach* Trees, and kills other Fruits at the Time of their knitting or setting for Fruit. The *South Exposition* receives the Sun soon after Six in the Morning after the Tenth Day of *March*, and continues till near Six at Night.

Its Accidents are the *East and by South*, &c. Winds which often blight *Peaches*, *Apricots*, &c. as is said before of the East Exposition. The *West Exposition* is blest with the *Sun's Rays*, when it has passed the *Meridian*, and continues till it descends the *Horizon*: The Fruit not receiving the early Warmth of the *Sun*, is generally ten or twelve Days later in ripening, and are seldom so good as those of the East Exposition, but always in greater Abundance, being defended from the *North-East*; *East* and *Easterly Winds*, which often blow in the *Spring*, destroying the *Bloom* and *Tender Fruits* of Eastern Expo-

Expositions more than those of the West. The *Accidents* attending this Exposition are *high* and *turbulent Winds*, generally happening at the End of the Summer, as I observed before.

The *North Aspect* is of all others the *most cold*, and exposed to the *North-West*, *North*, and *North-East Winds*, which are *destructive* to Fruit; and although this Exposition is so openly exposed, yet it produces *Morella-Cherries*, divers Kinds of common *Plumbs*, and even *Duke-Cherries* also, at a Season when all others are gone, and in very great Perfection.

These Expositions being thus explained, it now remains to speak something of the *Nature of Soils*, proper for Plantations of Fruits; for the distinguishing whereof there are many Rules; but for such that cannot change their Situation or Dwelling, must be satisfied with their own Soil, which, if bad, may be improved, as hereafter directed.

I shall not here assign certain Depths of Soils, wherein we are to *plant*, seeing that oftentimes we are obliged to use what we can find. 'Tis certain that the deeper Land is in Goodness, the better it is for the Trees planted therein.

Some Soils hold *two Foot*, and *two Foot and half*, and others one *Foot*, or *nine Inches* in Depth. When Land is very *shallow*, that is, when its Depth is less than *twenty Inches*, which is a sufficient Depth for Fruit-Trees, it must be raised with good Earth brought from other Parts. There are divers Kinds of Land, wherein Trees thrive: As, First, a *light Sandy Land*: Secondly, a *sandy Loamy Soil*, with *Brick-Earth* at Bottom: And, lastly, *stiff, cold, and wet Clay*. And besides all these, there are many other Kinds of Lands, as *Marsh Lands*, *Heaths*, *Boggy Grounds*, &c. wonderfully different in their Qualities and Composition; some being a perfect *Rock* of *Gravel*, others *Clay*, *Chalk*, *Quagmires*, &c. and some of all Kinds mix'd together: But above all, for our Purpose, the second Kind mention'd, namely, the *sandy Loamy Soil*, of a *brown Colour*, with a strong *holding Bottom*, is of all others the very best for *Fruit* and *Forest-Trees*. Of this Sort of Land are the most Parts of *Twickenham*, *Isleworth*, *Brentford*, and other Parts adjacent thereunto.

Chuse

New Principles of Gardening.

*Chuse a rich Soil when you intend to plant,
 Not that which heavy Sand has render'd faint.
 Avoid low Vales, which lie between close Hills,
 Which some thick Pool with noisome Vapours fills;
 Where pithy Mists, and hurtful Steams ascend,
 Least an ill Taste they to your Fruit may lend.
 Learn that t'avoid, where deep in barren Clay
 The speckled Euts their yellow Bellies lay;
 Where burning Sand the upper Hand obtains,
 Or where with Chalk unfruitful Gravel reigns:
 And lest th' external Redness of the Soil
 Deceive your Labours, and despise your Toil,
 Deeply beneath the Furrows thrust your Spade;
 Outward Appearance many hath betrayed.
 Earth under the green Sward may be enclosed
 To a rough Sand, or burning Clay disposed.
 Still fly that Place where Auster always blows,
 And for your Trees that Situation chuse,
 Where in the open Air, on a Descent,
 To bless their Growth, more gentle Winds consent.*

RAPIN, Book iv. Page 179.

Soils being different in *Contexture*, *Colour*, or *Site*, I have reduced them into three Sorts, *viz.* As, First, *Light*, *Sandy*, and *Gravel*: Secondly, *Mellow*, *Loam*, and *Brick-Earth*: And, lastly, *Stiff*, *Cold Land*, and *Clay*.

The *Manures* proper for those several Kinds of Soils are as follow: First, For a *loose sandy Soil* take of *Mud*, scoured out of *Ponds*, &c. and of *strong Loam* an equal Quantity; to which add a third Part of good *Horse-Dung*, well mix'd together, and it will make an *excellent Compost* for *sandy* or *light Land*. All *Composts* may be made in any Quantity; so that the Proportion of the Quantities of each Sort is carefully observed, and well mix'd.

When that you have mix'd a sufficient Quantity, cast it into the Form of a *Lestel*, and let it be turned three or four Times in the Year, and always kept clean from Weeds; for they exhaust the *vital Parts* thereof, and at the End of one Year 'twill be fit for Use. If to one Rod of Ground be allowed

allowed one *Load* of *Compost*, 'twill be a very good Allowance.

Marle (of the blue Kind) is a good *Manure* for *light sandy Land*; which, if laid on with Discretion, will last fifteen or twenty Years: For where *Marle* is used, the *Poornefs* and *Depth* of the *Ground* is to be always considered. On tolerable good Land may be laid eighty or an hundred Loads to an Acre; and on that as is *barren* and deep, from two hundred to four hundred Loads each Acre.

Clay of the lighter Sort is good *Manure* for *light shelly Gravel*, or *sandy Land*; but Care must be taken that the *Clay* is not digged in too deep. If an equal Quantity of *Clay* and *Sand* be equally mix'd together, the *Compost* will be a very good Loam.

Cow-Dung is an excellent Soil for hot Lands, as also *Deers*, *Sheep*, *Hogs*, and *Bullocks Dungs*.

Sandy Loams are some of the very best Lands for Gardening, and require but little Help; yet notwithstanding, *Time* doth craze out all the Signs and Marks of their *Strength*, which may be restored, or greatly improved as follows:

To one Load of *Horse-Dung* (well rotted) add a Quarter of a Load of *Sea-Sand*, (if to be had easy, if not, other Sand,) the same Quantity of *Lime slacked*, as also of *Pigeon Sheep-Dung*, and *Cow-Dung*, half a Load of *Chalk*, beaten small, and half a Load of *Marle*; mix them proportionally together, and it will be a good *Compost*, fit for immediate Use.

Chalk and *Marle* makes a good *Compost*: To every seven Load of *Marle* add ten Load of *Chalk*: If you allow *Marle* in greater Quantity, 'twill make Lands too luxurious.

Secondly, The *Manures* proper for *mellow Loamy Land*, whose Bottom is inclinable to *Brick-Earth*, is *Horse-Dung* well rotted, with some *Sea-Coal Ashes*, mix'd with it, well known to most Gardeners.

This kind of Soil is the most natural for *Gardens*, *Plantations*, &c. and requires little Help or Improvement, it being strong in its own Nature, and needs nothing more than the Spade to ridge it in the Winter, to bring it into Order and Culture.

Thirdly, and lastly, *stiff and cold Clay Lands* are help'd by divers *Composts*. To three Load of the natural Mold add
two

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two Load of good *rotten Dung*, one Load of *Sand*, two Load of the first Spit of a *rich Turf, Meadow, or Grass-Ground*, half a Load of *Street-Dung*, or *Sea-Coal Ashes*, with a small Quantity of *Pigeons Dung*; mix these proportionally together, and lay the Compost in a Heap, observing to turn it once a Month for the Summer Season, and in Winter it will be fit for Use. *Pigeons-Dung*, cast thin upon *cold Lands* early in the *Spring*, is very helpful, especially for *Corn* and *Meadow Lands*: Five Load will dung an Acre. *Sea* and *Drift Sands* are very good Composts for *Clay Lands*, making way for the Roots to shoot; as also doth *Sea-Coal Ashes*.

Rubbish of *Buildings* is very good for the Roots of Trees in *cold Land*; and *Chalk*, broken small, is a good Compost: The soft fat *Chalk* is the best.

Lime is another good Compost for *stiff Clays*, its Heat causing a Fume, and its Tenderness makes way for the Roots, to fetch home their Nourishment. The *Lime* used herein must be slacked, and as its Heat is great at first, therefore must be used with Discretion.

Cold and *shallow Land* is best manured by the following Compost: Take one Load of the *natural Mold*, two Loads of good *rotten Horse-Dung*, one of *Sand*, or *Sea Coal Ashes*, and one of *Chalk*, which mix proportionally together, and 'tis fit for Use.

N. B. that the oftner *Clay Lands* are dunged, and the less you lay on at a Time, is the better; for *Clay* is of such a *greedy Nature*, that it soon eats out the *Dung*, and oftentimes binds it, so that 'tis of no Use.

And besides the aforesaid Composts, *stiff Lands* and *Clays* may be improved by their being *ridged early* in the Winter, by the Help of *Frosts, &c.* which will so melorate the Ridges, that they will fall down like *Ashes*. Besides, the Winter's Air greatly sweetens the Soil, by exhausting and dispersing the *cold* and *raw Vapours*, which are fully expos'd to the Air, by its being thrown up in Ridges. To explain the Manner of *Ridging, Digging, and Trenching* of Ground, is needless, since 'tis well known to every *Gardener, and Gardener's Labourer*.

When

When *cold* or *Clay Lands* are troubled with Water, dig Drains to convey it away, with a Descent, that the Water may pass; and instead of *Arches*, &c. of *Brick Work*, fill them up six or eight Inches with *large Stones*, and over them lay small *Brush Green-wood*, and thereon the *Mold*. Those Drains so made will convey away the Water, and drain the Lands as desired.

Of all Sorts of Land for Plantations, none is so bad as the *Clay*, especially the *strong Blue*, *strong White*, or *strong Red*; but when naturally mix'd with Stones, not so bad.

Besides the preceding Soils, *viz.* *Sand*, *Loam*, and *Clay*, there are in many Parts two Sorts of Land, called *Russet-Grays*, whose Temper is between *Sand*, *Loam*, and *Clay*; of which one Sort is very *strong* and *heavy*, and the other more *lighter*, coming near to the Nature of *Sand*. The *strong* and *heavy* may be melorated, as the *Clays*, and the *lighter* by the following Composition. To one Load of *rotten Dung* add one Load of *Street Cleanings*, one Load of *Lime*, and half a Load of *Coal Ashes*, or *Drift Sand*, with a small Quantity, or Sprinkling of *Pigeons Dung*, which being well mix'd, is a very good Compost; and if to it you add *old Rags*, *Pot-Ashes*, *rotten Leaves*, &c. 'twill greatly improve it. This Compost being turned once a *Month*, for *four Months*, will be an excellent Manure.

N. B. That the best Time to make Composts is in *September*, to be used in *February*; for thereby there is but little of the *volatile Parts* exhausted away by the *Sun's Heat*, or Growth of *Weeds*, which Composts naturally produce.

This last Sort of *light Gray-Russet Land* hath two different Situations; the first is, when it lies high, (for which the foregoing Compost is to be used,) and the other, when it lies *low* and *wet*, which requires a Manure of a *more lively Nature* than that as lies high: Therefore, for such *sandy wet Lands*, take the following Manure, (*viz.*) To one Load and a half of *Sea-Coal Ashes* or *Sea-Sand* add one Load of *rotten Horse-Dung*, one Load of *Street Dung*, with half a Load of *Sheep* and *Pigeons Dung*; mix these well together,
F and

and they will make an excellent Compost for such Lands. About eighty Loads is a good Allowance for one Acre.

These Directions being sufficient for the manuring any Sort of Lands, 'twill not be amiss to say something in relation to their *Bottoms*, which are either *advantageous* or *prejudicial* to the Roots of Trees. *First, Advantageous*; and such are *Gravel, Chalk, and shelly Rock*, mixed with *Earth*, which always abounds with *nitrous Particles*, as nourishes and improves their Roots. *Secondly, Prejudicial*; as a *barren Sand or Clay*; the one *drinking* the Nourishment away from the Roots, and the other *retaining* it too long. *Chalk Bottoms* are very good; they produce Fruit *wonderful sweet*, and in great Plenty.

I shall now conclude this *Section* with some useful Observations on good and bad Lands, known by their natural Productions. *First*, then, such Lands as naturally produce *Mallows, Docks, Hemlock*, and other Weeds of the like Nature, are generally good and fruitful; for such Weeds love fat deep Land. For 'tis ever to be observed that such Land as produce Weeds, or Grass, naturally strong, is undoubtedly *very rich* and *fruitful*.

Land, as naturally produces Weeds, &c. of a smaller Growth, as *Dazies, Plantane, Clover*, &c. is often very good; but seldom so good as the preceding.

Barren Earth is to be known divers Ways: As, *First*, when instead of good *green Grass*, and a *plentiful Crop*, be a *pale small Grass*, inclinable to a *blewish Colour*: *Secondly, Broom, Furze, Heath, Moss*, &c. denotes *barren Land*, especially if they be small. Lands situated near the Sea Coast, is often barren, being poisoned and starved by the *ill Vapours* and *Storms* proceeding from thence, which is also destructive to Trees and Plants.

Mountainous and *rocky Lands*, extream hot and dry, are generally barren; so also is *extream cold* and *moist Lands*, as *strong Clays*, whose *tough* and *Binding Nature* in the Winter will not admit the *Rain* or *Snow* to soak into it, and in the Summer locks up the *Grain* or *Roots* within itself, that they have not *Liberty* to shoot or sprout forth.

Sands

Sands upon mountainous rocky Places producing small mossy and yellow Grass, are generally barren.

Black moorish Sands produce four unwholsome Grass; and *white or yellow Sand*, a short blewish mossy Grass.

Gravelly, gritty, loose Sand, is also barren, caused by Cold, the Gravel wanting good Mold, to warm that as grows in it.

Barren Lands always require much more Manure than better Lands, notwithstanding 'tis consumed in half the Time; for in *Clay Lands* the Toughness of the Clay is so great, the Soil cannot incorporate with it.

Great Rains is the Cause of Barenness in hollow hungry Sands, as well as great Droughts: For the Sun exhales the Moisture and Heart of the Soil, which the Rains produce; so that light sandy Lands are deprived of their vital Juices both Ways.

Land may be fit for *Fruit-Trees, Corn, &c.* but not for *Timber-Trees*; such whose Depth is one Foot, or fifteen Inches, and its Bottom a cold wet Gravel, which is very disagreeable to their Roots.

Note, when I speak of *Timber-Trees*, I mean *Oak, Ash,* and *Beach*, and not *Abeals, Elms, &c.* of the *Aquatick* Tribe.

The like Depth of Ground is oftentimes found lying on an undivided Rock, or Quarry of Stone, Marble, &c. of a large Extent; also improper for *Timber-Trees*; and although the *Ash* is a Tree that naturally runs shallow, yet 'tis generally a Pollard, and decays before it comes to any Perfection for Timber.

S E C T. II.

*Of the Manner of raising Stocks from
Kernels, &c. and Time of Grafting and
Inoculating Fruit-Trees; with Observations
thereon.*

FRUIT-TREES are raised from *Kernels, Suckers, Layers, Cuttings, Seed, Grafts, and Inoculation.* (1.) Those from *Kernels*, are *Apples, Crabs, Pears, Peaches, Almonds, Cherries, Abricots, Plumbs, Walnuts, Chesnuts, and Filberts.* (2.) By *Suckers*, are the *Plumb, Quince, Medlar, Filbert, Codlin, Gooseberries, Currants, and Raspberries*; as also *Paradise-Stocks.* (3.) By *Layers*, are *Vines, Figs, Quinces, Mulberries, and Cornelian-Cherry.* (4.) By *Cuttings*, the *Vines, Codlings, Mulberries, Pomgranates, Barberries, Figs, Quinces, Genitings, Paradise-Stocks, Gooseberries, and Currants.* (5.) By *Seed*, the *Service and Mulberry.* (6.) By *Grafting, and Budding, or Inoculating* on Stocks of *Plumbs, Peaches, Cherries, Crabs, Pears*, all the Sorts of *Peaches, Abricots, Nectarines, Almonds, Plumbs, Cherries, Apples, Pears, &c.*

To raise young Stocks for *Grafting and Budding*, you must prepare a *Border*, (or many, if you sow much,) of good mellow fresh Land, about three Feet in Breadth each, and thereon sow your *Kernels*, (not too thick;) after which, with your Spade, turn them in about four Inches deep, and then rake and finish your *Border*, not forgetting to set *Traps for Mice*, as will visit them in the Winter.

The Time for sowing of *Kernels* is from the Time as the Fruit is ripe, until the Spring following, *viz. February or March.*

If you are careful in keeping them clean from Weeds, and that they be watered now and then, they will be greatly encour-

encouraged, and thrive thereby. N. B. The Sorts of *Kernels* to be sown, are the *Crab*, *Apple*, *Pear*, *Cherry*, and *Filbert*: The others, as *Peach-Stones*, *Almonds*, *Apricots*, *Plumbs*, *Walnuts*, and *Chestnuts*, must be sown or dropp'd in *Drills* made with a Hough, about four or five Inches in Depth, and about two Foot and half asunder: The *Kernels* must be placed in the *Drills*, at the Distance of *nine* or *ten Inches* asunder, because they will not be removed before they are made *Trees* by *budding* or *grafting*. These *Kernels* delight in a *light rich Land*, and love to be *clear* of Weeds, and kept *moist* by Waterings in very *dry* Seasons.

In *Autumn* when the Seedlings has done growing, trench a Piece of *fresh mellow Land*, and therein plant all the largest, leaving the weak ones till the next *Autumn*.

The Rows you plant them in must be two Foot and a half asunder, and the Stocks Distance in the Line, about one Foot.

You must also observe, to prune of the *Tap-Root* of every Plant, and thereby they will have good Roots in Plenty, which otherwise would be but one, and that very bad for transplanting. When your Plantation has seen two or three Years, and the Plants arrived to the Bigness of a Man's Thumb towards their Bottom, you may begin to *graft* or *inoculate* them with such *Fruits* as you think best, which being grown a Year or two after their *Inoculation* or *Grafting*, will be fit to transplant against any *Wall*, *Espallier*, &c. Perhaps it may be expected that I should, according to the vulgar Way, describe and explain the Method of *grafting* and *inoculating* Fruit-Trees; but knowing that 'tis familiar with every *Gardener*, and is what cannot be well understood by bare Theory only, without the *Practice*, therefore I advise every one as is a Lover of *Curiosities* in *Art* and *Nature*, and is desirous to well understand those two *Philosophical* Entertainments, to be fully informed therein by the Help of some *Nursery-Man* or *Gardener* at the proper Seasons for those Works, of which I shall now deliver every useful Observation to be made therein.

First, in *Grafting*, which is performed four several Ways, viz. (1.) *Whip-Grafting*, generally used on small Stocks for *Cherries*, *Pears*, *Apricots*, &c. (2.) *Stock-Grafting*, used in grafting *Apples* on *Crabs*, or *Pears* on *Quinces*, or any other Fruit, whose Stocks are large. (3.) *Rind-Grafting*, used for the graft-

grafting of *large Stocks* or *Trees*, as are too large to cleave, as in *Stock-Grafting*. And, lastly, *Inarching* or *Grafting* by *Approach*, used chiefly for *Oranges*, *Lemons*, *Citrons*, &c.

The Time or Season for Grafting, is all *February*, *March*, and about one Week in *April*. The first you begin with must be *Cherries* and *Plumbs*, they being forward Fruits, after them *Pears*, and, lastly, *Apples*.

In the Choice of *Cions* or *Cuttings* for *Grafting*, you must observe to take them from such *Trees* as are good *Bearers*, and from such Parts of the Tree, as is *truly vigorous* and *healthy*, and such Shoots as are fullest of Buds. Note, that the *last Years Shoot* is what you are to use, and not those of two or three Years.

And further observe, that 'tis best to cut off your *Cions* or *Grafts* a Month before you use them, and lay them in Earth, half buried, during that Time; but observe to lay the *Bottom End* in the Ground, instead of the Top.

By *Midsummer* your *Stock* and *Graft* will be grown together; and then they require to have their *Bandage* taken away, that they may have free *Liberty* to *thrive* and prosper.

Secondly, *Inoculation*, (called by *Gardeners*, *budding*;) by which is raised *Peach-Trees*, *Nectarines*, *Apricots*, *Cherries*, *Plumbs*, *Pears*, *Apples*, &c.

The Season for this Work, is from the Beginning of *June*, to the Middle of *August*; and 'tis best performed *very early in a Morning*, in the Cool of an *Evening*, or in *cloudy Weather*, for hot Weather is *very prejudicial* to the *Buds* and *Bark* of the *Stocks*, during the Operations.

Great Care must be taken to *unbind* the *Buds* in due Time, which may be known by the Swelling of the *Stock*, above and below the Bud. Those *Trees*, as you bud early, may be unbound at sixteen or eighteen Days after *Inoculation*; and those, as you bud late, somewhat longer. In the *Spring* following you must cut off the Heads of the *Stocks*, about one Inch and half above the Bud, after which your Bud will sprout out, and make a handsome Tree. N. B. It is usual to put in two or three Buds in each *Stock*, at proper Distances, in a smooth Part of the *Stock*, for Fear of a *Miscarriage*, and bud them such a Height above Ground, as to leave Room underneath, to bud them again the next Year, in Case they miss the first. There are divers Sorts of *Peaches* as takes very well, and others *very diffi-*

difficult: As for Instance, an *Old Newington* takes very well, and a *Minion* very difficult; therefore that ye may not be wholly disappointed, when you bud a Stock with a *Minion*, put in also over it a Bud of an *Newington*; for if the *Minion* misses, 'tis ten to one but the *Newington* takes, (which is one of the best *Peaches* we have;) and provided that they both take, then when you head your Stock down, cut away the *Newington Bud*, and the Remains is the *Minion*; and the like of other *easy and difficult Fruits* in general.

*When among other Seasons of the Year,
The Time of Grafting comes, do not defer,
In proper Stocks young Cions to inclose;
Then Buds between the cloven Bark dispose:
And if your Fruit be bad, as oft it will,
Make Choice of better, and remove the ill.
By these Improvements, greatest Praise you get,
And thus your Gardens Honour you complete.
Into your Stocks the Foreign Pears admit,
And far-fetch'd Apples place within the Slit.
Hence springs a nobler Race and greater Store
Of hopeful Offspring than you had before.
The Plants you want the Gardeners will give:
If not from distant Countries them derive.
Greece first sought Plants in barb'rous Climes, and then
She civilized the Trees as well as Men.
These still at Home, she fortunately plac'd,
And by Translation did correct their Taste.
When Plants of a corrected Taste are found,
And Stocks are chosen which are young and sound;
The Grafter then th'adoptive Bough must bring
Into those Stocks: Of this the Means I sing.
Which though they are distinct, you learn with Ease
How to graft fruitful Slips in barren Trees.
Some cut down Trunks which bore a lofty Top,
And hollow them above, thus Woodmen lop
The tallest Oakes, and cut out four square Stakes;
But first of all a Wedge its Passage makes.*

This

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*This done, the Cions may descend downright
 Into the Cleft ; and with the Stock unite.
 Though others in the Rind, betwixt each Bud,
 Make an Incision, and the Graft include ;
 Which, by Degrees, is afterwards inclin'd
 T'incorporate it self with the moist Rind.
 Some like a slender Pipe the Bark divide,
 Or like a Scutcheon, slit it down the Side,
 Or the hard Trunk, which a sharp Anger cleaves,
 Into its solid Part the Graft receives :
 Mean while, with Care, the Branches which are joined,
 You with a seven-fold Cord must strongly bind,
 And all the Chinks with Loam and Bass defend ;
 For if the cruel Air should once descend
 Into the Cleft, it would impede their Juice,
 And to the Plant its Nourishment refuse.
 But if these Dangers it has once endured,
 When the adopted Branch is well secured.*

*By their Conjunction, Trees there Nature loose ;
 That which was wild before, more civil grows.
 Unmindful of their Mother, they forsake
 The Taste, which they from her at first did take.
 From yellow Quinces and Cornelians rise
 Fruits, which are differenc'd by various Dies ;
 The Pear thus mends ; the Slow affords good Plums ;
 And the bad Cherry better now becomes.*

*From different Boughs distinguish'd Species shoot ;
 But now I tell how you must mix your Fruit,
 What Branches with each other you may join,
 What Sorts will best in Amity combine.*

*All Kind of Pears the Quinces entertain ;
 And then receiv'd with their own Tincture stain.
 The hoary Pears their Taste to Apples give,
 They with the Shrubby Willow too will live.
 The Fig would love the Mulberry, if that
 Its blacker Hue would somewhat moderate.
 Cherries with Laurels blushes will compound ;
 Apples with Apples do their Taste confound.*

They

*They of Auvergne, in Willows, Fruits inclose;
'Tis true, at first their Colour grateful shows:
But by this Marriage they degen'rate are,
And taste but ill, although they look so fair.*

RAPIN, *Lib. iv. Page 194.*

S E C T. III.

*Of the Time and Manner of Planting all Sorts
of Fruit-Trees, in any Kind of Land, as
Clay, Loam, Sand, Gravel, &c.*

FIRST, I advise, that in the Spring you provide ten, twenty, &c. Loads of the *first Spit* of some waste Common or Grass Ground, whose Soil is a sandy Loam, where Cattle has been continually fed, and has not been broke up or till'd in the Memory of Man, which being done, throw it up into the Form of a *Lestel*, observing to bury the Turf as much as possible; or it may first be pared thinly off, before the Earth is digged, and afterwards mix'd with Discretion. The Mould thus prepared must be turn'd once a Month till October, at which Time it will be fit for Use. If your Land be of the Clay Kind, mix *Drift Sand* or *Sea-Coal Ashes* with your Mould, to prevent its being converted to the Native Soil, viz. Clay.

It is almost impossible to express, how agreeable this Compost is to the Roots of young Trees; therefore the more you can afford them, the better 'tis for their future Growth and Prosperity.

To plant Fruit-Trees in a stiff Clay, &c. proceed as follows:

First, Dig your Holes four or five Foot square, and about twenty Inches or two Foot deep; carry away the native Earth, and fill up the Holes with good Mould and Dung well rotted, and mix'd together; or if you have Plenty of the foregoing Compost to use that instead, 'twill add much to their Growth,

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it having a *very strange* and *uncommon Fertility* in it, more than any other Compost of Made-Earths whatsoever. Before you fill up the Hole, *pave* the Bottom with broken *Tiles, Brick-Bats, &c.* to prevent the Roots getting into the *poisonous Clay*.

If your Land be a *sharp hot Sand* or *Gravel*, mix *fresh Mould, Cow-Dung, Horse-Dung*, well rotted, and a *mild Clay*, together in a Compost, which if made in the Spring, and turn'd monthly in the *Summer*, may be used in *October*.

When you plant in a very good *sandy Loam*, 'twill not be amiss to mix your Earth with the Compost of *fresh Earth* before prescribed, for 'tis of *admirable Service*.

In the planting of Fruit-Trees, the following Methods are to be observed:

First, That the *Earth* be truly prepared as before directed.

Secondly, If your Land be not cold and wet, plant in *October, November, or December* at latest, for thereby, during the *Winter*, the Roots will be *swelling* and preparing themselves to put forth their tender *Fibres* and *Strick-Root* early in the *Spring*.

But if your Land is *naturally cold, wet, and heavy*, 'tis best to plant in *February*, when the *Spring* is making its *Entrance*, and the *Earth* growing warm, which *nourishes* the Roots of Trees; whereas, was they planted in *October* or *November*, the *wet and cold* might have kill'd their Roots.

To plant Trees *late in the Spring*, as *March* or *April*, in *light Soils*, is very *dangerous*; 'tis too often seen, that the *parching Winds* and *dry Weather* prove fatal to them.

Thirdly, That you don't plant the Trees *too deep*; for thereby, in four or five Years, the *Roots* will be got below the good Earth, which will throw the Tree into a *sickly decaying Condition*.

If the *upper Roots* of any Tree be six or seven Inches below the Surface, 'tis sufficient, for all the *best Juices of the Earth* lies near to the Surface.

Fourthly, That Fruit-Trees be not planted too near; for after five or six Years, they crowd one another, and cause many Branches to be nailed near a Perpendicular, which will lessen the Fruit, and soon *ruin the Tree*, especially *Peach* and *Apri-*
cot-

cot-Trees, whose Bark is thick, and will not admit young Shoots to come where great Wood is cut away: Therefore always keep Trees thin of Wood in the Middle, that their Branches may have Room to spread *Horizontally*, and thereby be kept in a bearing Condition.

This *Misfortune* of too near planting is not the only one; for by the near Distance, their Roots soon meet, and rob one another of their proper Nourishments, and deprive the Borders of their *Fertility*, which, when once lost, is never to be recovered again; but by destroying the first planted Trees and planting others therein of different Kinds.

If *Fruit-Trees* against *Espalliers*, *Walls*, or for *Dwarfs*, be planted at eight, nine, ten, twelve, or fourteen Foot distance, 'twill be found to do very well, *viz.* *May Cherries* at eight Foot; *Peaches* and *Nectarines*, when without *Vines* between them, at nine or ten Foot; when with *Vines*, at twelve Foot; *Plums*, *Duke-Cherries*, and *Apricots*, at twelve or thirteen Foot; and *Pears* at fourteen or fifteen Foot; as also *Apples*, except such as are grafted on *Paradise-Stocks*, which need not exceed seven or eight Foot Distance.

*You who the Beauty of your Trees design,
To each along the Walls its Seat assign.
Cherries with Cherries, Figs with Figs may meet,
The Syrian and Crustumian Pears are fit
To mingle with the British, but we find,
That Apples and red Plums must not be join'd.
All that are of a Sort together plant,
They must succeed, if they no Culture want:
And when Affairs of greater Moment cease,
To set their Stations be your Bus'ness;
For if they have not ample Room to spread,
They then both Strength and Nourishment will need.*

RAPIN, *Lib. iv. Page 215.*

N. B. I do advise, that those Borders wherein your Fruit-Trees are planted, be kept clean from Weeds, and that there be neither Pease or Beans sown or planted in them, as is common, or any edging of Box, &c. to exhaust the Richness and Humidity of the Soil from the Fruit-Trees, which is oftentimes

the *Death* or *Ruin* of them. And that the upper Part of the Wall may be useful for the first three or four Years, 'tis very frugal and commendable to plant tall *Standard-Cherry*, *Plumb*, and *Apricot-Trees*, (if the last be *budded* on a *Muscle-Stock*, and be of the *Bruxel* Kind,) in the intermediate Spaces between the other Wall-Trees, by which Means both Top and Bottom will be filled together, and with good Care, may be done in three Years Time. As the lower Trees comes up, the upper ones are to be cut away, to give Room, and at length, taken quite away, and transplanted as Standards in the Orchard or Kitchen-Garden.

Vines are often planted in those intermediate Spaces, and soon get to the Top, producing Fruit the third or fourth Year.

In the placing of a Wall-Tree, at Planting observe, that the Bud or Graft is from the Wall, as also the best Roots, and that 'tis placed inclining at the Distance of eight or nine Inches at Bottom, and two or three at the Extremity of the Head; for if you plant your Tree close to the Wall, when it has arrived to be large at Bottom, it will naturally grow from it, so that you cannot keep them in good Order; and besides, the the Wall gauls them, and they soon *die*; or otherwise are render'd *very weak*, and worth nothing.

'Tis a common Practice in the pruning of the Roots of *Trees*, to reduce them both in *Number* and *Length*, but for what Reason I cannot imagine, excepting such small, tender, fibrous Roots as are killed by the Wind, presently after the Tree is taken up, which is absolutely necessary to be done, and such Roots as are inclinable to grow downwards, which we call *Tap-Roots*. 'Tis evident, that the more Roots is left to Trees, (so as they are not over and above large in Number and Quantity,) the greater Quantity of *Juices* such Trees are capable of receiving, and consequently a greater Nourishment. In a Word, the only Reason for so doing is, that Trees will live being so pruned, and much less Trouble in Planting.

If you plant *Peach*, *Nectarine*, or *Apricot-Trees* in the *Autumn*, leave their Heads on till the *Spring* following before you head them, at which Time cut them off at about six or seven Inches above the Bud, and observe, that the *Cut* is towards the Wall. The Time for this *Work* is *March*.

Before

Before I proceed any further, I shall mention an *Abuse* which most *Fruit* and other *Trees* receive as are bought of *Nursery-Men*, which is the *cutting* and *bruising* their *Roots* in taking out of the *Nursery*, and *breaking* them in *packing* up: A Crime unpardonable.

If by Transportation the *Roots* of *Trees* are very dry, 'tis good to lay their *Roots* (but not *Top* also) in a *Pond* for twenty four *Hours* before you plant them.

When *Trees* are above *Ground*, and their being planted prevented by *Frost*, 'tis best to put them in a *Cellar*, cover'd close from the *Air*, &c. and when the *Frost* is gone, *soak* their *Roots* in *Water*, as before directed.

The *Distances* before deliver'd for *Wall Trees* holds good in *Dwarfs* and *Espalliers*; as *Espalliers* and *Wall-Trees* are planted with an *Inclination* to the *Espalliers* or *Walls*, so on the contrary, *Dwarf* and *Standard* *Trees* must be planted *exactly perpendicular*.

The *Height* of *Dwarf Trees*, when first planted, must be regulated to the *Land* wherein they are planted. If the *Land* is *dry*, six *Inches* above the *Graft* is a good *Height*; but if a *moist Land*, about eight or nine.

Standards in any *Land* whatsoever should be *headed* at six or seven *Foot* at most, except where particular *Trees* are required for high *Walls*, &c. that *People* may not easily come at the *Fruit*, &c.

When *Standard* or *Dwarf Apple-Trees* are planted, the *Place* of *Grafting* should be placed even with the *Surface* of the *Ground*, if it does not cause the *Roots* to be too deep, which must *always* be avoided.

Where any *Fruit-Tree* decays having grown long in that *Place*, plant another of a *different Species* in its *Place*, and *not one of the same*; for the *old Tree* having exhausted those *Juices* appropriate to its own *Kind*, will *starve* your new-planted *Tree*, when at the same *Time* another of a *different kind* will thrive, and prosper very well.

Hence it appears, that every *Plant* hath its peculiar *Juice*, by which 'tis supported; and therefore the *Earth* contains as great a *Variety* of *Juices* as of *Plants*, &c.

But

*But Nature never shew'd more Wantonness,
Then when so many Shapes she did impress,
From Wardens to the Pears which lesser grow,
And did to each its proper Juice allow.*

RAPIN, Lib. iv. Page 218.

Trees of the first Year's Graft or Bud, are always the best; which to make choice on in a Nursery, observe that their *Bark be smooth*, and free from *Canker, Gaults, &c.* that their yearly Shoots be *strong and vigorous*, and that they be *wellrooted*; such Trees as have but one *Stem*, or two at most, are the best for planting.

When you prune the Root of a Fruit-Tree for planting, observe to cut away all dead *fibrous Roots*, all bruised Parts committed by the Spade in taking up, which perform with a *Knife, &c.* as cuts *smooth* and clean.

When you prune a Tree, hold it in your *Left-Hand*, with the *Head* behind you; the Cuts at the End of every Root will be downwards when planted, which is the right Way of pruning Roots.

To plant Trees in the Summer Season, as must of Necessity be removed, (otherwise 'tis best to leave them till *November*), take of the Compost I directed for the planting young Trees with, and an equal Quantity of *Cow-Dung*; mix these well together, and put to them as much *Water* as will make it into *Pap*, which is performed in the following Manner:

The Compost of *Earth* and *Cow-Dung* being well mix'd together, you must provide a *Bearing-Tub*, wherein mix the mix'd Dung and Earth with Water: The Instrument with which 'tis stirr'd in mixing, is such as *Brewers* use in *stirring* their *Malt* in the *Marsh-Tun*.

When this Mixture is of such a Thickness, as to support the Stirrer from falling, being put upright in the Tub, 'tis fit for Use. The *Pap* being thus prepared, and the Hole digg'd of such a Magnitude as is necessary, *viz.* if in bad Ground, &c. to be made good with fresh Land and Compost, as before directed, which being done, fill all the Sides of the Hole up with good Mold, leaving in the Middle sufficient Room for

for the Root of the Tree, then place your Tree therein, and with your Hands place or spread all such Roots as are necessary, in a *horizontal Position*, pouring thereon the Pap before prepared, and putting fresh Mold about the outward Part thereof, till it has caused the Pap to rise and mix itself with every Root in general, and flows out above the Crown of the Root, treading it now and then very gently to force it up in the hollow Parts of the Roots; then fill up the Hole, making a Cup about it, which fill up with rotten *Horse-Dung*, and in two Hours the Tree will be fix'd. This Way of planting is very good for *Yews*, *Holleys*, and all other *fibrous-rooted* Trees. 'Tis also an *excellent Method* for planting very large Trees; and according to this Manner of planting, that *celebrated* Planter the Honourable JAMES JOHNSTONE of *Twickenham*, has planted some Thousands of *Fruit*, *Forest-Trees*, and *Ever-Greens*, with great Success.

Lastly, To preserve the Roots of new-planted Trees from the Cold of the Winter, and Heat of the Summer, lay about the Stem of every Tree good rotten *Horse-Dung*, without long *Litter*, *Fern*, &c. for that breeds *Worms*, *Ants*, and other Vermin injurious to Fruit-Trees.

Let the Thickness of the Dung be about four Inches, or not quite so much, covering it thinly with a little Mold; and if your Land be dry or hot, form the *Dung* and Mold in the Form of a *Disb* or *Cup*, to receive the *Water*, which must be carefully given during all dry *Seasons*, both of *Spring* and *Summer*.

S E C T. IV.

Of the several Kinds of Earth proper for
all Sorts of Fruit-Trees.

FIRST then, *Pears, Apples, Plumbs, and Fig-Trees*, will thrive in any kind of Land as is deep, be it moderately hot or cold.

In hot, dry, and light sandy Land the *Peach* must be budded on a *Peach-Stock*, and in wet and strong Land on a *Muscle*, or *White Pear Plumb-Stock*.

Almonds love a light Land, when raised from their own *Kernels*; but if grafted on a *Plumb*, a strong Land.

When *Almonds* or *Peaches* are budded on their own *Stocks*, and planted in strong Land, they are too subject to *Gum*, which impairs their Health.

Quinces will not thrive in light Land, delighting more in strong, wet, heavy Lands.

Pears grafted on *Pear-Stocks* delight in a dry Soil; and when grafted on a *Quince-Stock* in a moderate wet strong Soil.

Cherries thrive well in light Lands, but better in a good sandy Loam.

Vines produce the best *Grapes* when planted in dry light Lands, as chalky, sandy, gravelly, rocky, &c. Lands, and the Exposure warm.

Peaches budded upon *Almonds* thrive best in dry hot Lands.

The *Winter Bouchretien Pear* produces the fine Colours of *Yellow* and *Carnation* when grafted on a *Quince*, which it will not do when grafted on a *Pear-Stock*.

Now, that the Plant may with the Mold comply,
What Fruits it most approve you first must try:
Whether the Vine thrives best upon the Place,
Or other Trees; for there can be no Grace

In

*In any Ground that's forced against its Will
To bring forth Fruit; therefore remember still
Never with NATURE any Force to use;
For 'tis injurious, if she should refuse.*

*When once the Land is levell'd and prepared,
Let it in equal Distances be shared:
Appoint the Seats in which your Trees shall stand,
Then chuse a Quince from a selected Band:
And having cut the woody Part away,
Into warm Mold you then the Plant may lay:
Nor think it unworthy of your Hand
To make the Furrows hollow, or t'expand
The Earth about the Roots; for still we find,
That he who does the Law of Planting mind,
He who from Parent Stocks young Branches cuts,
And then in Trenches the soft Layers puts,
Seldom repents these necessary Pains,
But rather Profit by his Care obtains.*

*While Fortune waited on the Persian State,
CYRUS, who from Astyages the Great,
Himself derived, himself his Gardens till'd;
How oft astonish'd IMOLUS has beheld
Th' Industrious PRINCE in planting Trees and Flowers,
And watering them, employ his vacant Hours?
How oft ORONTES stopp'd his hasty Flood,
And gazing on the Royal GARDENER stood.*

*The Sabine Valleys heretofore have known
When noblest Romans have forsook their Town;
When they their Pomp and Glory laid aside,
And to the RAKE and PLOW themselves apply'd.*

*And this Employment warlike FABIVS chose,
When he return'd from vanquishing his Foes.
He who in open Senate made Decrees,
Manures his Ground, and now gives Laws to Trees.
No longer o'er his Legions he commands,
But sows the Earth with his victorious Hands:
The Glebe, by this triumphant Swain subdued,
Repay'd his Pains with timely Gratitude:*

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*Became more fruitful than it was before,
And better Plants and larger Apples bore.*

*Thus MASSINISSA when he won the Day
And made false Syphax with his Troops obey:
In tilling of his Ground he spent his Time,
And try'd t'improve the barb'rous Libian Clime.*

*Illustrious GEORGE, who carefully attends
His Kingdom Government sometime descends
From his high THRONE, and in the Country deigns
To please himself, and slack his Empire's Reins.
He thinks not that he makes his GLORY less
T'improve his Ground; his Servants round him press,
Thousands with Fruits, Thousands with Flowers strive
To fill the Place; the Water some derive
Into the Gardens, while with watchful Eye,
He oversees the Work, and equally
To ev'ry Labourer his Duty shews,
And the same on all the Field bestows.*

*Nor does the King these Arts in vain approve;
The grateful Earth rewards his Royal Love.*

*But why should I such great Examples name;
Our Age wants nothing that should more inflame
Its Zeal; for since the greatest Men now please
Themselves in cultivating of their Trees;
Since 'tis their Praise to do it, why should you
Refuse this sweet Employment to pursue.*

*If Fruit of your own raising can invite,
If in your Villa you can take delight,
Or can the Country love, to that apply
Yourself and to your Plants no Pains deny.
The Stars if kind, or Goodness of the Soil,
Help not so much as never-ceasing Toil.*

*Then let the Earth more frequent Tillage know;
The stubborn Globe is vanquish'd by the Plow.
When Rain or stormy Winds pernicious are,
When the Sun's Influence or intemperate Air,
Injurious proves, the Tiller's Industry,
And Culture all Defects will soon supply.*

*That this is true, a Marſian Clown has shewn,
Who in a little Garden of his own,*

Which

*Which he himself manured, had Store of Fruit,
While all the Country else was destitute :
The standing Corn you on his Ground might view,
And Apples broke the Boughs on which they grew.
His Neighbours quickly envied his Success,
He by his Thessalian Arts his Ground did dress ;
They said, and hastened on his early Corn
By Herbs upon the Marſian Mountains born,
Or Magical Infusions ; then repleat
With Rage and Envy to the Judgment-Seat.
They haul the blameless Swain, where his Defence
He makes with Pain and rural Eloquence.
His Sickle he produces, and his Spade,
And Rake, which by long Use were brighter made.
See here, said he, the Crimes which I have done ;
If Tools by Time and Usage bright, are one :
These are my Magick Arts, these are my Charms :
Then stretching forth his Labour-stiff'ned Arms,
His Sabine Dame, and Daughter's brawny Hand,
Inur'd to work, and with the Sunbeams tann'd.
Thus by his Industry his Cause he gains ;
So much a Field improves by constant Pains.
Hence comes good Corn, and hence the Trees are crown'd
With heavy Boughs ; hence 'tis that they abound
In their choice Fruits, in each of which we find
A Colour proper to itself assign'd.*

RAPIN, Book iv. Page 181.

S E C T. V.

Containing a Catalogue of all the best Wall, Espalier, Dwarf, and Standard Fruits now growing in England; with General Rules for their pruning.

I. **O**F Peaches and Nectarines, budded on the Peach, Muscle, Plumb, or Almond Stocks,

Of Peaches: The best are,

White and Red Magdalenes,	Nivet,
Mountabon,	Perfique,
Bourdine,	Peach Royal,
Minion,	Swalsee, introduced by the Lord
Early Admirable,	Peterborough,
Old Newington,	Hative,
Yellow Alberge,	Swiss,
Anne,	Flanders,
Bell Chevreux,	Nobles,
Rambollion,	Albemarle.

Ripe in the great Season of Peaches, viz. from about July 20: to August 20.

Their Expositions to be full South, or declining to the East, forty five Degrees at most.

Of Nectarines: The best are,

Newington,	Temple, ripens late,
Roman,	Elrouge,

Ripe in August. Their Exposition as the preceding.

The

The late Peaches are,

Late Admirable,
Catherine,
Malegotune,
Burdock,
Peach-Poe,
Man-Peach,

Pourpree,
Wimbleton,
Bellgard,
Late Purple,
Murry Nectarine.

All which ripens in the End of *August* and *September*.

For these late Fruits, a *Full-South* Exposition is of all others the very best.

The Goodness of *Peaches* is judg'd by the *Nature* and *Goodness* of their *Tastes*; the best having fine *musky*, *sugar'd*, *vinous*, *excellent*, *noble*, and *delicious Juices*; and those of a *bad Kind*, *dry*, *watry*, and *insipid*. The *Pulps* of *Peaches* have two different *Qualities*; the one when *ripe*, cleaving *fast* to the *Stone*; and the other coming *clear* from it. Thus saith *Rapin*,

*Some of a thicker Substance stick fast on,
While others which are thinner quit the Stone.
These last with Juice and dewy Moisture swell,
And all the other Sorts by much excel.*

II. Of *Pears* grafted or budded on *Pear* or *Quince Stocks*: Of which there be *three Kinds*, viz. *Summer Pears*, *Autumn Pears*, and *Winter Pears*.

The best Summer Pears are,

Citron D'camus, *ripe Middle of*
July; afterwards comes
Primite,
Jargonel,
Petit Muscat, *July*,
Sugar Muscat,
Green Chizel,
Gooseberry Pear,
St. Magdalene,

Quire-Song Pippin.
Vermillion,
Mouille Bouche,
Windfor,
Summer Bouchretien, *Aug.*
Cyprus,
Royal Bergamot, *ripe in the*
Beginning of August.

After

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After which comes the

Summer Buree,
 Orange Bergamot,
 Summer Bergamot,
 Gros Roussellet,
 Petit Roussellet,
 Petit Blanquet, *July*,

Gros Blanquet,
 Blanquet Musque, *July*,
 Rozate,
 Cassolet, *Aug.*
 Roussellet.

The best Autumn Pears are,

Vert-longuee, *Oct.*
 Buree du Roy,
 Autumn Bouchretien,
 Petit Oing,
 Roussellet, *Aug. Sept.*
 Doyenne, *Sept. Oct.*

Greenfield,
 Lovisbon,
 Deagoe,
 Messire John, *Oct.*
 Cuiffe Madam, *July*,

Autumn Pears,

Craffan, *Oct. Nov.*
 Bizidery, *Oct. Nov.*
 Swan's Egg,
 Lanfac, *Nov.*
 Salladin,

Roy Musk,
 Hambden's Bergamot,
 St. Michael,
 St. Andrew.

The best Winter Pears are,

Winter Bouchretien, *ripe in*
Feb. March.
 Golden Bouchretien, *Jan. Feb.*
March.
 Spanish Bouchretien, *Nov. Dec.*
 Colmar, *Nov. Dec. Jan. Feb.*
 Sir Germaine, *Dec. Jan.*
 Ambret, *Nov. Dec. Jan.*
 Virgoulee, *Nov. Dec. Jan.*
 Lachasserie, *Nov. Dec. Jan.*

Amadote, *Nov. Dec.*
 Winter Thorn, *Nov. Dec. Jan.*
 Salviati,
 Royal D-hyver,
 La Marquis,
 Grey Buree,
 Winter Buree,
 Satin Pear,
 Martin See, *Nov.*

The

The best Baking Pears are,

Pickering,
Spanish Warden,
English Warden,
Perkinson's Warden.

Black Pear of Worcester,
Pound Pear.
Cadillac.

III. *Apricots* grafted or budded upon *Plumb-Stocks*,

The best Kinds are,

Masculine,
Bruxelles,

Orange,
Turky.

Which last is an excellent Fruit, but a very tender Tree, and a bad Bearer.

IV. *Figs* raised by *Layers* or *Suckers*,

The best Sorts are,

Fig-Flower, or large white Fig,
with a short Stalk,
Fig-Flower, or large white Fig,
with a long Stalk,
Little Marfeilles white Fig, a
good Bearer.
Black Madera Fig,
Grey Fig,
Brown-Purple Fig,
Genoa Fig,
Vernislingue Fig,
Green Fig,

Yellow Fig,
Flat Violet,
Long Violet,
Melinga Fig, of a Violet Co-
lour,
Brugeotte Fig, of a Violet Co-
lour,
Dwarf Fig, of a Violet Colour,
Bouriageotte Fig, a deep Vio-
let,
Little Mignionne Fig, a brow-
nish Violet.

Figs in general delight in much *Sun*; their Season of ripen-
ing is in *August* and *September*.

V. *Plumbs* grafted or budded on *Plumb Stocks*.

The

The best Sorts are,

Musk Perdigon,
Purple Perdigon,
White Perdigon,
St. Catherine,
Roche Corbon,
Green Gage,
Reineclaude,
Maitreclaude,
Queen-Mother,
Violet,
London Plumb,
Fotheringham,
Drapdor,

Blew Diapree,
White Matchless,
Cerney Perdigon,
Imperatrice,
La Royal,
Damazine,
Mogul, *good for baking,*
Plumb Ordin,
Morocco,
Orleaince, or Orlin, *an excellent Bearer, and a good Fruit on a South Wall.*

The Goodness of all these Fruits deserves a *South Wall*, but will do very well on an *East* or *West Wall*, or any Decliner to the South.

VI. *Apples grafted upon Crab Stocks,*

The best Kinds are,

Non Pareill,
Golden Pippin,
French Pippin,
Holland Pippin,
Kentish Pippin,
Kirking Pippin,
Winter Pearmain,
Autumn Pearmain,
Summer Pearmain,
Pome Roy,
Russeting,
Golden Russeting,

Corpendue Rennet,
Golden Rennet,
June Apple, *so called, because 'twill keep till June,*
Quince Apple, *excellent for the Kitchen,*
Jerusalem Apple,
Api,
White Calvil,
Red Calvil,
Monsterous Rennet.

VII. Of Grapes raised by Layers or Cuttings.

The best Kinds for this Climate are,

July Grape,	White and Black Fronteniaks,
Black Currant Grape,	Claret Grape,
Early Sweet-Water Grape,	Burgundy Grape,
Muscat,	Black Cluster Grape,
French Sweet-Water Grape,	White Raisin Grape, <i>for Tarts.</i>
White and Black Muscadines,	

*To Plumbs and Grapes just Commendations yield,
If on the Wall they are by Nails upheld.*

*Muscat and Purple Vines, which both observe
Their wonted Seasons, may our Praise deserve.*

RAPIN, *Lib. iv. page 219.*

VIII. Of Cherries grafted or budded upon the Black-Cherry Stocks.

The best Kinds are,

May Cherry, <i>its being ear-</i>	White and Black-Hearts,
<i>ly,</i>	Caroon,
Holman's Duke,	Carnation,
May Duke,	Flemish,
Lukeward,	English,
Early Flanders,	Morella,
Cluster Cherry,	Common-Black.
Bleeding Heart,	

IX. Of Gooseberries raised from Cuttings, or by Suckers.

The best Kinds are,

Red and Green Champains,	Walnut,
Old Red,	Damson,
White Dutch,	Black hairy Goosberry.
Amber,	

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X. Of *Currants* raised by *Cuttings* or *Suckers*.

The best Kinds are,

Large white and red Dutch, || Black Medicinal Currant.

XI. Of *Rasberries* increas'd by *Runners*, or *Suckers*.

The Kinds are,

Purple, || White.
Red,

XII. *Strawberries* increas'd by *Runners*.

The Kinds are,

Scarlet, || Hautboy,
Wood, || Great White Strawberry,

XIII. The *Barberry* raised by *Suckers*, or *Layers*.

The Kinds are,

Berberry with Stones, || Berberry without Stones.

XIV. Of *Nut* or *Shell-Fruit*.

The Kinds are,

English and large French Wal- || White and Red Filberts, of
nuts, best for pickling. || which the Red is the best.
Chesnut,

XV. The *Quince* raised by *Layers*, or *Cuttings*.

XVI. The *Mulberry* raised by *Layers*, *Cuttings*, or *Seed*.

XVII.

XVII. The *Cornelion Plumb* or *Cherry*, raised by Layers, Slips, and Stones, often lie *two Years* in the Ground before they spring.

XVIII. And Lastly, the *Medlar*, which is increased by grafting on the *White-Thorn*, *Quince*, or *Pear-Stock*, and the *Service* by young Sets from the Woods, or by sowing their Seeds.

I having in the former Part of this *Section*, explained the Manner of *preparing* and *planting* of *Fruit-Trees* in general, and have now delivered a *Catalogue of the best Fruits*, and how *propagated*, either by *Grafting*, *Inoculation*, &c. I shall in the next Place proceed to lay down some general Rules to be observed in their *pruning*, and afterwards explain the Culture and Management of every Sort particularly.

General Rules to be observed for pruning Fruit-Trees.

I. The nearer Branches are laid to a *Horizontal Position*, the *more apt* they are to produce Fruit.

II. The nearer Branches are laid to a *Perpendicular Position*, the *less apt* they are to produce Fruit, but *Wood* in great Plenty.

III. That the Middle of *Fruit-Trees* be kept clear of *great Wood* or *thick Branches*, especially *Peaches* and *Apricots*.

IV. That the Quantity of Wood left after Pruning, be in some Degree of Proportion to the *Strength* and Condition of the Tree, not to crow'd in more Wood than *Nature* can well supply.

V. That the Branches of *strong* and *vigorous* Trees be left *longer* than those as are *weak*, and to cut away all as grow forward from the Wall.

VI. That Branches be not laid a-cross each other, except on a very great Occasion, &c.

VII. In the pruning young-planted Trees, of one Year's Shoot, observe, That if a Tree has *one* or *two vigorous*, or well-disposed *Branches*, with two or three weak ones, prune them all to an equal Length, of about five or six Inches, leaving but two of the weak, with those two as are stronger; but this is never to be done, but when the Shoots are placed regular, *viz.* a strong Branch and a weak one on one Side, and the like on the other.

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Therefore if all the weak Branches be on the one Side of the Tree, and the strong ones on the other, displace one of the strong Shoots entirely, and leave one strong Branch only with the other two as are weaker. If the Position of the two weak Shoots should be both above the strong ones, and they not on one Side; then at such Times 'tis best to cut away the two weak Branches intirely, and form the Tree with those Shoots as will proceed from the Buds of the remaining Branches.

VIII. *Weak or decaying Trees* should have their Wood pruned much shorter than those as are in perfect Health, and the Shoots preserved must be fewer in Number.

IX. When Trees of one Year's Growth produce seven or eight Shoots, chuse out three, or four at most, of the middling Wood, and displace all the others.

X. When either young or old Trees produces stronger Branches towards the Bottom than the Top, 'tis a Sign that its upper Part is in an ill State of Health; therefore at such Times 'tis best to cut away the weak Part entirely, and form a new Tree with the strong and healthy Branches remaining.

XI. When Trees of any Age produce weak Branches at Bottom, and vigorous ones at Top, 'tis best to cut down that Tree to the weak Branches, and thereby they will be strengthened, and the Tree proceed upwards in an equal State of Health.

XII. To nail in bearing Branches over-thick, starves the Bloom, causes the Fruit to be small and insipid, and at length ruins the Tree. Therefore avoid thick nailing; for of the two Extremes, 'tis best to prune and nail too thin, rather than too thick; for as I said before, that thick nailing ruins a Tree, so on the contrary, thin nailing causes fine Fruit and good Wood, &c.

XIII. When you prune Dwarf-Trees, observe that the Bud you prune at stand outward, and not inward, or Side-ways, and thereby the Tree in its natural Growth will form itself, without the Assistance of Hoops, &c. to extend out their Branches to form the Tree.

*You cannot be so often put in Mind
Of that Advantage which your Plants will find:
By being prun'd, the Boughs will thus obey,
And by your Tool are fashion'd any Way:*

*Though tough with Age, they stoop to your Command,
Nor can the crooked Pruning-Knife withstand:*

*And when the Trees thus cut revive again,
When from their Wounds they borrow Courage, then
Oft exercise your Power, and so restore
Beauty to that which was deform'd before.*

*Youth unadvis'd doth in Desire exceed,
And would without all Moderation breed.*

*The Pruner's Care must succour each Defect;
He with his Knife their Vices must correct;
Superfluous his Servants may repress;
Destructive Pity makes them more increase.*

*But in what Part they must be cut, and how
From the Experienc'd you will better know:
Always untouch'd the chiefest Branches save,
From whom you hope a future Race to have.*

*Now if the Season proves reciprocal,
You may behold your Fruit upon the Wall:
Your Garden's Riches then will make you glad;
Nor think that any Thing can Colour add,
Or Bigness to them, but that Influence,
Which on their Ranks kind Phœbus does dispense.*

*Nature your Wishes then will satisfy
If with these Methods only you comply.*

*And though we Ripeness to our Fruits impart
By Heat on Walls reflected, yet this Art,
By the Reports of dark Antiquity,
In the Records of Time is set more high.*

RAPIN, Lib. iv. Page 220.

SECT.

S E C T. VI.

Of the Native Place, Name, Exposition,
and Culture of the Peach and Nectarine-
Trees.

I. **I**T S Native Place is *Persia*, whose extreme Parts, (*North* and *South*;) differ about ten Degrees of *Latitude*, which Difference is supposed to be the Cause of their several Kinds being ripe at divers Seasons.

That is, 'tis supposed, that our early *Peaches* were Natives of the *Northern*, and our latest of the *Southern* Parts.

The mean Latitude of *Persia* is about thirty five Degrees North, its Extremes being, the one thirty, and the other forty Degrees Latitude.

II. Its Name. In *Greek* 'tis called *περικὴ μηλέα ῥοδύμνα*; in *Latin*, *Malus Persica*; in the *Arabian* Language *Sauch*, or *Chauch*; in *Italian* *Persiche*; in *Spanish* *Pexigos*; in *Dutch* *Perceboom*; in *French* *Pesche*; and by the *Germans* *Pfesichbaum*.

III. The *South* and *South-East* *Expositions* are certainly the very best; but *Peaches* will do very well on a *South-West*, and oftentimes on a *West* Wall, which ripens its Fruit, just as that of the *South* Wall is gone. *Peaches* ought not to be planted on a *cold wet Soil*, their Fruit are always watry and insipid.

IV. In the Culture of *Peach-Trees* great Care must be had, to *well* and *timely* pruning, &c. In which observe

When *Peach-Trees* hasten to bear very soon, 'tis a Sign of *Decay* or *Weakness*; and the best Help for them is, to disburden the Tree of its Bloom, and prune it to short Wood.

When *Peach-Trees* are *vigorous*, cut out such large Wood as appears to be useless, and nail in the Remains at a long Length, as twelve or fourteen Inches. In making Choice of
Shoots,

Shoots, always chuse the *middling Wood*, as are full of *swelling double Buds*; for those produce Fruit which the *flat single Buds* do not, their Product being *Wood* and *Leaves* only.

The best *Time* to prune *Peach-Trees* is in *March*, when all the hard *Frosts* are over: You must observe in pruning to cut out all *dead Wood*, all *Autumn Shoots*, and *yellow sapless Branches*; to cut your *Shoots* to about six or eight Inches in Length, and to lay in the *Branches* at a moderate Distance, as three Inches, &c.

In *May* you must carefully and discreetly thin your *Peach-Trees* of their super-abundant Fruit, leaving them not too thick, which will cause all the Fruit to be small, and good for nothing; one good Peach is better than a thousand bad ones.

About *Midsummer* top the *Shoots* with Discretion, and nail them to the Wall, without any great Regard to the Order; because at the next Pruning they will be all alter'd; and about this Time you may begin to introduce the *Sun* to your Fruit; but do it gradually, which will give it its *natural Colour*, and *Maturity* likewise.

When *Peach-Trees* have their *Branches* nailed, or placed *horizontally*, the *Sap* is retarded, and the *Blossoms* will not fall from the Trees, by being, as it were, strangled by the *Superfluity* of *Sap*, which often happens in Trees whose *Branches* are *perpendicular*, or near thereunto: Therefore Regard hereunto should be had, as I have before said, that the *Branches* should be nailed *horizontally*.

Be careful to displace all *Suckers* as may rise from the *Roots* or *Bottom* of the Trees, and carefully keep all *Side-Branches* nail'd up, cutting, or rather rubbing off all *Buds* or *Branches* as grows forwards from the Wall, and also cutting away all *Shoots* infected by *Blights*, *Insects*, &c.

If the *Summer* be *hot* at the Time of your Fruit ripening, make a *Bason* over the *Roots*, and give them Plenty of Water, so as not to over-do it, and the Fruit will be wonderfully augmented thereby. If the *Mowings* of *Grass-Plots*, &c. be laid in those *Basons*, it will prevent the *scorching Rays* of the *Sun* from *drying away* the *Moisture*.

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The first *Peach* ripe is the *Nutmeg*, at the End of *July*; after which follow the rest in Order, in the Months of *August* and *September*.

|| *N. B.* That *Peaches* are infinitely better when gather'd three or four Days before they are eaten. When you gather *Peaches* take care they are not bruised, and lay them on *Vine-Leaves*, with their Heads downwards in your *Fruittery*, till they are eatable, always remembering that if a *Peach* is laid on its Side, 'twill immediately be rotten.

When you prune new-planted *Peach-Trees* of the first Year's Shoot, (which should be done in *March*;) do not leave *too much* Wood, nor cut it all away, as many do; but discretionally proportionate the same to the *State* of the *Tree*, as I have before mention'd.

In the *pruning* of Fruit-Trees in general, observe when you prune off the End of a *Shoot*, that you cut it off a little above a *Leave-Bud*, the Slope cut at the Back thereof. The more any Tree is pruned, the more it will shoot.

When you desire a Fruit-bearing Tree to produce new Wood, which of itself is not inclinable to do, rub off the Bloom, (or most of it,) and *prune* the Shoots to *half* their usual Length, and the Tree will break out into Plenty of Wood, which must be govern'd as I have before directed.

The *Nectarine* being a *Kind* of a *Peach*, or at least one of that *Tribe*, is to be managed in all *Respects* as the *Peach*.

If Mr. *Bra--l--y*'s Report of the *Peaches* in *Italy*, (mentioned in his *General Treatise for the Month of December*, *Page 133.*) growing to sixteen or eighteen Foot high in two or three Years after planting, without Walls, be actually true, 'tis evident that they love a warm Exposition; and therefore we must allow them the best Wall our Garden affords.

SECT.

S E C T. VII.

Of the Native Place, Name, Exposition, and Culture of the Pear-Tree.

I. **T**HE native Places from whence Pears were originally brought, were *Alexandria*, *Numidia*, *Greece*, and *Numancia*, as appears by their several Names.

II. Its Name. The *Arabians* call it *Humeeth*; the *Italians* *Pere*; the *Arabs* *Cirmetre*, or *Kemetri*; the *Germans* *Bir*, *Biren*, and *Piren*; the *Spaniards* *Pyras*; the *French* *Poire*; and the *Dutch* *Berre*.

III. The best Sorts of Winter Pears (all which the Catalogue consists of) deserve the very best Wall and Aspect you can give them. N. B. They will not be ripe, till some Time after they are gather'd. All Baking-Pears may be planted against North-East or North-West Walls, as also the *Roussellet*, *Orange*, *Bergamot*, *Catherine*, and other Summer and Autumn Pears.

The Soil wherein Pears delight, is a rich, sandy, deep Loam, as the Reverend Mr. *Lawrence*, in his *Pleasure and Profit of Gardening improved*, Vol. I. Chap. 7. observes, "That a rich, deep, sandy, mix'd Earth, in fifty four Degrees of Latitude, will do more towards accelerating the ripening of the best Fruit, then a stiff cold Clay will do in fifty one" From which it appears, that the so-much celebrated Mr. *Bradley* is very much mistaken in his *New Improvements of Planting and Gardening*, Part III. Page 30. Where, says he, "The Soil which the Pear chiefly delights in, is a wet Earth, inclining to Clay." (And further adds, in the following Words) "Nay, I have seen this Kind of Tree prosper extremely in the strongest Sort of blew Clay, which is accounted the worst of Soils; so that this Sort, no more than the Apple-Tree, delights in what we call rich Earth." Now 'tis true, that Pear-Trees will grow in cold wet Earths, and in Clay also; but, alas! the Fruit they

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produce is *watry* and *insipid*, and consequently good for nothing, even in the best of Seasons. And as an Instance to prove that Pears do delight in what Mr. *Bradley* calls rich Earth, (by which is to be understood, a good *mellow*, sandy, deep, holding Loam,) let any Person go to the Honourable Mr. *Johnstone's* at *Twickenham*, where they will see, on his Terrafs, are growing the very best Pears in England, and in the greatest Perfection, whose Soil is a fine, rich, holding Loam, something inclinable to a Brick-Earth. I could instance divers other Places to prove the Mistake; but in regard to its coming from a Gentleman, and not from a Gardener, I will modestly forbear, only adding, that instead of its being inclinable to Clay, he meant Brick-Earth.

When the Situation and Nature of Soils are inclinable to too much *Cold* or *Wet*, let the Holes be prepared as I directed in the former Part of this Section, and therein plant the *Lachasserie*, *Winter-Thorne*, *Virgoulee*, *St. Germain*, or *Amadot*, which are very fine in their Kinds, and will do on a South Aspect tolerable well.

Pears upon *Quince-Stocks*, are best for *low Walls*, *Dwarfs*, or *Espalliers*, and especially in wet Lands. These Stocks doth effectually cure too great a Luxuriancy in the Pear, and causes it to produce Fruit much sooner than when on a Pear Stock; but then on the other Hand, it has this Evil attending it; it is a short-lived Tree.

The several *Bonchretien* Pears, being grafted upon a *Quince*, and planted in a warm Soil, produce much better and larger Fruit than on a Pear-Stock.

When young new-planted Pear-Trees (and indeed any other) are too vigorous, running altogether into fruitless Wood, take them up with Care, and immediately plant them again in the same Place without pruning: This Removal will put a Stop to their *luxuriant Growth*, and cause the Tree to prosper very well.

The best Season for pruning Pear-Trees, is at the Fall of the Leaf, in which Care must be taken, to cover all large Wounds with a Mixture of *Rosin*, *Mutton-Suet*, and *Bees-Wax*, as soon as the Branch is cut off. The last Year's Shoots may be pruned to nine Inches, a Foot, or eighteen Inches in Length, according to the Strength of the Shoot; always observing to cut out all false

false Branches, called Water-Shoots, known by the extraordinary Distance of their Buds, and to lay in no more Wood, then the Roots may be reasonably supposed capable of supplying with sufficient Juices.

In *Nailing* of *Pear-Trees*, always remember to place the Branches *Horizontally*, otherwise they will soon come to Ruin: *Perpendicular* Branches are ever destructive.

To distinguish the proper Branches which produce Fruit from those as produce Leaves only, observe the following Account, *viz.* There be few *Pear-Trees* as produce Fruit before they are three Years old, or their Wood of the like Age, that is, such Shoots as are produced this Year, are preparing themselves all the second Year to produce Fruit in the third. Hence it appears, that *Pear-Trees* have their bearing Buds in three several States, continually succeeding one another. The blowing Buds of three Years old discover themselves at the Fall of the Leaf, who, whilst the Fruit preceding them was growing and ripening, they were preparing to succeed them the ensuing Year.

These Buds of three Years Growth are known by their being very full, and larger than any others, in a seeming Swelling impatient State of breaking out into its beautiful Dress of delightful Bloom. The next preparative Buds of two Years, are of a sharp conical Form, and Red-russet Colour, growing very near to the fruitful Bud before described: And lastly, the Junior Bud of one Year is a very small one, but full above the Bark, and always breaks out very near to that of two Years Growth: And besides all these, there is another wonderful Work of Nature, which is the Preparation of smaller Buds as are continually forming themselves within the Bark, to break out, and succeed those their next Seniors of one Year's Growth, and so on, *ad infinitum*: And in Consideration that this wonderful Work of Nature was never explained by any one, therefore, for the Use of the Curious, and all others concern'd in Gardening, I shall soon communicate an entire, new, and general System of the best Fruits now extant in *England*, wherein the true Form of their Buds, Branches, Leaves, Blossoms, and Fruits, are truly represented, as they appear in their several Stages or Degrees of Growth: With Observations on their Progress, and proper Directions for their Managements, &c.

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explain'd, and curiously engraven on Copper Plates, as large as the Life itself.

Prune *Luxuriant Trees* very late, and cut away one of the largest Roots, especially a *Tap-Root*, if any be; which will retard its hasty Growth, and cause it to bear.

Suffer not any *Snags* or Branches pruned short, from which good Fruit comes; to project from the Wall more than two Inches at most.

In *May* begin your Summer Pruning, observing to cut all *forward* and *luxuriant* Branches to an *Inch and a half*, or *two Inches*, from the Place they shoot from. This shortening will check the Course of the Sap, and cause a good bearing Branch (or more) to come in its Place, or break out into bearing Buds itself, and produce Fruit in the progressive Manner before described.

N. B. That what I have said here in respect to stopping the *luxuriant Growth* of Pear-Trees, the same is to be understood of all other Fruits, the *Vines* and *Figs* excepted.

The *Summer Bonchretien* should be always pruned in *May*, observing to nail in the Shoots at full Length; for they produce their Fruit at the Extremities of the Branches.

Both *Summer* and *Winter Bonchretiens* should be planted against *high Walls*, as *Houses*, &c. They want more Room to extend themselves than any other Pear; and if they are confined by Pruning, immediately grow full of *Knots*, and produce but little Fruit: A warm Soil is best for them.

When a young *Pear*, or any other Fruit-Tree, as a *Peach* or *Apricot-Tree*, breaks out with Shoots on the one Side, and not on the other, Care must be taken to timely lead some of the tender Shoots to the barren Side, that thereby both Sides may be filled. The bending of those Branches are not any wise hurt thereby, but rather helped, by reason that early Check causes them to bear Fruit very soon.

If in *July* your Pear-Trees are over-vigorous, and break out with forward Shoots, cut them off close, and nail in all Branches as lie flush with the Wall, still observing that 'tis best to rub off the Buds of such Branches when they first appear. Suffer no Suckers to grow at the Roots of your Trees, any more than Weeds, &c.

At the End of *August*, and Beginning of *September* the *Autumn Pears* are fit to gather, which Work should be done in the Middle of the Day, when the Fruit is perfectly dry.

They are not ripe, or fit to be eaten till some Time after they are gathered, as a Week, ten Days, and some a Month.

All *Winter Pears*, as Bonchretiens, Colmar, St. Germain, Virgoulee, Lachasserie, Ambret, &c. must not be gathered till *Michaelmas*, or Middle of *October*; at which Time (as I said before) great Care must be taken to gather them perfectly dry; if otherwise, they will grow moldy, and be presently rotten.

About the End of *November* the Winter Pears begin to ripen, as the Lachasserie, Virgoulee, Ambret, Colmar, Craslan, St. Germain, &c. which, with Care, most of them will last all *January*, and Part of *February*, and the *Winter Bonchretien* till *May*.

In the *Autumn*, when the Pears begin to drop from the Trees, as the *Winter Pears* will do when their Time for gathering is come, lay under every Tree the *Mowings of Grass*, for the Fruit to fall on, and carefully take them away as they fall, to your Conservatory, least others fall upon the first, and bruise them. The Manner of preserving Winter Fruit I will exemplify at the latter End hereof.

In *March* prune young Pear-Trees of one Year's Shoot with Discretion, not for to take but little from them, or to take all away, (as is too often done by many.)

This Month of *March* is the proper Season to retard the luxuriant Growth of Trees, by (what Mr. *Lawrence* calls) *Plashing*, that is, cutting the luxurious Part near to whence it shot, something more than half through; which checks its vigorous Growth, and thereby is sooner disposed to bear Fruit. If by Mismanagement Fruit-Trees have many perpendicular Branches as are unfruitful, 'tis best to plash them, as before directed.

N. B. But this Way of Plashing is not to be practised on any Trees but Wall-Trees, Peaches excepted, and very low Dwarfs, whose Branches are secured by Stakes; for was Standards to be cut in that Manner, the Winds would soon break off those Branches.

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The best Pears for *Espaliers* and *Dwarfs*, are the *Citron*, *d' Camus*, *Primit*, *Sugar Muscat*, *Fargonel*, *St. Magdalen*, *Quire-Song Pippin*, *Vermillion*, *Mouille Bouche*, *Gooseberry Pear*, *Green Chizel*, *Cyprus*, *Orange Bergamot*, *St. Germain*, *Ambret*, *Spanish Boncbretien*, *Virgoulee*, *Colmar*, *Lachasserie*, and indeed all others, with good Care, the *Summer* and *Winter Boncbretiens* excepted for *Dwarfs*, but very well for *Espaliers*, where they have Room to extend themselves.

Your *Espalier* and *Dwarf Pears* being planted in the *Autumn*, at the Fall of the Leaf, as I before directed, at their proper Distances, &c. in *May* following pinch off the Tops of perpendicular luxuriant Branches, within half an Inch from whence they shoot, and 'twill cause others to break out as will be good Wood. At this Time you may discern what Buds will be serviceable in filling up empty Places, or for Fruit, and all others should be displaced. This Work being now done, the Sap immediately heals the Wounds.

The Proportion laid down for the Distance of *Espaliers* from Walls, and their Height, by the Reverend Mr. *Lawrence*, is very good, *viz.* as Eight to Twenty, that is, if the Distance of the *Espalier* from the Wall be twenty Feet, the Height must be eight Feet, &c.

The several Kinds of useful Wood in a *Winter Pear-Tree* are three, *viz.* Wood with Fruit; Wood preparing itself for Fruit, which is doing a Year beforehand; and lastly, the yearly Shoot; so that that Shoot as is made this Year, is swelling and knotting itself in the second Year, to produce Fruit in the third Year; but yet there be some *Summer Pears* as produce Fruit the second Year: Therefore Care must be taken every Year to lay in young Wood to succeed the Place of the old, which must be cut out when grown barren of fruitful Buds, &c.

SECT.

S E C T. VIII.

Of the Native Place, Name, Exposition, and Culture of the Apricot.

I. **I**T S native Place is *Epira, Epire, or Epirus*, a Province in *Greece*, first founded by the *Romans*, and therefore was called *Mala Epirotica*.

II. The *Apricot* by the *Greeks*, is called *μελέκ αρμενιάνα*; in *Latin*, *Malus Armenica*; in *Arabick*, *Mex*, and *Mermex*; in *Italian*, *Armoniache, Moniache, Bachose, and Grisomele*; in *Spanish*, *Albiricoques, Alvaricoques, and Alberchigas*; by the *Germans*, *Sir Johan Pffersick*; and the *French*, *Abricot, or Carmaignoles*.

III. Their *Exposition* is best when *South*; but will do on *South-East, South-West, or East and West Walls* very well.

IV. Their *Culture*, wherein observe (after the Tree is planted, as before directed,) to *prune and nail* them according to the Manner directed for the *Peach*, to keep the Trees clear of *Suckers and Weeds*, and to cut away all *blighted Branches*, or others infested by *Insects, &c.* to thin the Fruit with Discretion in *May*; and when it is fully grown, to gradually expose it to the Sun, which in its Ripening will give its natural Colour and Taste.

'Twill not be amiss, if at the Time of your Fruits ripening, that you make a *Basin* over the Roots of the Trees, and give them Water plentifully, if the Season be very *hot*, and to lay the Mowings of *Grass* therein, to prevent the *Sun* from drying away the *Moisture* as is necessary for the Trees.

About the End of *May*, or Beginning of *June*, the *Masculine Apricot* is ripe; and towards the Middle of *July* the *Orange and Turkey*; which last, is a Fruit of an excellent Flavour.

Apricots gather'd one Day before they are eaten, gives them an excellent delicious Flavour.

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The true *Bruxelles Apricot* is an excellent Fruit, and will prosper very well on *Espaliers*, *Dwarfs*, or *Standards*.

N. B. The Method laid down for *plashing* of Pear-Trees, &c. is not to be practised on the *Apricot* at *no other Time* but the *Month* of *May*, the *Sap* being then capable to heal the Wound instantly.

In *March* prune all young-planted Trees of one Year's Shoot, which perform with Discretion, not to leave more Wood than is necessary, nor to lay in the Branches over long; and lastly, not to prune them too short, to add new Vigour, as some call it, too often to the Destruction of good Trees.

S E C T. IX.

Of the Native Place, Name, Exposition, and Culture of the Fig.

I. **I**T'S Native Place: The *Fig* is an Native of *Barbary*, long since introduced into many Parts of *Europe*, as *France*, *Spain*, *Italy*, *England*, &c. where, by Length of *Time*, and divers *Improvements*, the several *Sorts* are become as numerous as *Peaches*, *Apples*, &c.

II. Its Name, in *Greek*, is called *συκον*; in *Latin*, *Ficus*; in *Arabick*, *Sin*, *Tin*, or *Fin*; in *Italian*, *Fichi*; in *French*, *Figue*; in *Dutch*, *Feigen*; in *Spanish*, *Hygos*; and by the *Germans*, *Feighen*.

III. This *Favourite Fruit* delights best in a *South Exposition*, where its Soil is *dry* and *stony*, like unto the *Vine*.

IV. In the Cultivation of the *Fig*, you must observe, that it doth not delight in being much prun'd, or often digg'd about. The best Season to plant the *Fig* is in *March* or *April*, when all the *cold Frosts* are gone and over; and if the Spring prove dry, never forget to give them *Plenty of Water*; 'twill greatly add to their Growth. In *March* take off the *Suckers* of *Figs*, and transplant them where required,
and

and at the same Time lay down the *Layers*; which take off, and transplant the *March* or *April* following: You must not cut or prune the *Tops* or *Heads* of either *Suckers* or *Layers* of *Figs*; 'tis *immediate Death* to them, when so cut.

The best Season to prune *Fig-Trees* is in *June*; at which Time you must observe, that you leave all the Shoots with their *Tops* on, because those extream Parts, (*viz.* the three last *Buds* or *Eyes*) produce the Fruit the ensuing Year.

Cut out all large Wood, as is too much, which always cut off as near the Ground as may be, and cover the Wound immediately with the Mixture of *Mutton-Suet*, *Rozin*, and *Bee's Wax*, as I before mention'd. The *largest*, or *strongest Shoots* of the *last Year* are what produces the *Fruit*; all small weak Shoots are now to be cut away.

Admit not *Suckers* at the *Roots* of your Trees, except that an *Increase* is required.

If in *June* you *pinch* or *nip* off the End-Buds of the young Branches, 'twill stop the over and above Course of the Sap, and cause the Fruit to come much earlier, and in greater Perfection: *Sand*, *Lye-Asbes*, &c. laid at the *Roots* of *Fig-Trees*, greatly accelerates the Ripening of the Fruit. At the Pruning of *Fig-Trees*, observe to nail up, or confine to the Wall, all the large Branches; but let the young Shoots, which produce Fruit, be at free Liberty: The Fruit will ripen much better than when confined to the Wall. But in *November* following it will be best to nail them close to the Wall, the better to preserve them from the Winter's Frosts.

And although the common Practice in *England* has been to plant this Fruit against Walls only, yet 'tis to be understood, that *Figs* will prosper, and produce good Fruit in great Plenty, when planted *Dwarfs* or *Standards*; as may be seen in the Gardens of that great *Encourager* of Planting, the Honourable *James Johnston*, of *Twickenham*. The best *Figs* as I know of now in *England*, as are really good, are the White and long Purple *Figs*, ripe at the End of *August*: The others, mention'd in my Catalogue, are of *France*; of which some are, and others might be also cultivated in *England*, with as much Ease as the Purple and White; and that my Reader may be informed of their several Qualities, take the following Description: The *Figs* mention'd in my Catalogue, are either *White*, *Black*,
3
L
Yellow,

Yellow, Grey, Green, Brown, Purple, or Violet colour'd, consisting of sixteen different Kinds. As, first, Of *White Figs*, which are three in Number, *viz.* the *Flower of Figs*, the first ripe, called by the *French Figue Fleru*, having a short Stalk something flat. The second is of the same Name with a long Stalk; and the third, called the small *Marseilles Fig*, of a flat Make, and very fruitful Kind.

All these three Sorts bear twice a Year, *viz.* Spring and Autumn; and their Fruit are richly sugar'd, have but few Seeds, and are melting.

II. *The Black Fig*, or *Madera Fig*, called by the *French le Figue de Madere*, is a black large *Fig*, of a long Make, a very great Bearer, and requires a very warm Exposition to ripen its Fruit, as well as a very high Wall to extend it self.

III. *The Yellow Fig*, called by the *French Incarnadine*, or *Incarnation*, is a very large *Fig*, like unto the *White Flower of Figs*: 'Tis a great Grower, bears twice a Year, *Spring* and *Autumn*; it seldom produces much Fruit in the *Spring*, but generally in *September* great Quantities: It is of a *Reddish Colour* within Side, and a very good Fruit.

Besides this *Yellow Fig*, there is another called the *Golden Fig*, and by the *French Figue Dorée*: 'Tis a large flat Fruit, its Skin breaks in Ripening, and produces a much better Crop in the *Autumn* than in *Summer*.

IV. *The Grey Fig*, called by the *French la Figue de Grise*, a large *Fig* of a long Make, greyish on one Side, and a little blewish on the other, an indifferent good Bearer, and a tolerable good Fruit.

V. *The Green Fig*, called in *French Figue Verte*, and by some *La Verdalle*, or *Figue d'Espagne*, *Spanish Fig*, by the *Italians Verdane*, is a plump round Fruit, always green without, and when ripe, very red within Side.

'Tis a very *hardy Tree*, and produces a better and larger Crop in *September* and *October*, than in *Summer*, and is a very good Fruit.

VI. *Brown-Purple Figs*; of which there are two Sorts, *viz.* the *Genoa Fig*, called by the *French Figue de Gennes*, or *la Figue Fievre*, the *Treaver Fig*. It is an excellent fine flavoured *Fig*, and produces Fruit larger than any other: Its *Shape* is long,

long, and Colour a *brownish Purple*, and withal an excellent Bearer, when in a warm Exposure.

The other Kind of *Brown-Purple Figs*, are called *Vernisique*; it is an excellent good Fruit, of a *brownish Purple* Colour, and delights in a warm Exposition.

Lastly, *Violet Figs*, of which there is *six Sorts*:

As, 1st, The *long Violet Fig*, called by the *French Figue Violette longue*, *Figue Poire*, *Pear Fig*, and by some *Figue de Bourdeaux*, the *Bourdeaux Fig*: 'Tis a very large Fruit, a great Bearer, ripe in *September*, when no other Fig is in Season; 'tis very full of large Seeds, and its Pulp somewhat dry.

2^{dly}, The *flat Violet Fig*, called by the *French Figue Violette plat*: 'Tis a plentiful Bearer in the *Autumn*, but not in the *Spring*; of a middling Size, a fine *delicious melting Taste*, and indeed is one of the very best Sort of *Figs*.

3^{dly}, The *Bouriageotte Fig*, ripe in *September*, of a *light Violet* Colour, a very large Fruit, a plentiful Bearer in the *Autumn*, but not at *Midsummer*; and withal an excellent good Fruit.

4^{thly}, The *Melinga Fig*, called by the *French Figue de Melingue*, an excellent delicious Fruit, of a *Violet* Colour without, and *Red* within; its Form is long and thin, and when near ripe, is subject to drop its Fruit: It loves a very warm Exposure, and will not admit of any pruning for many Years after planting.

5^{thly}, The *Dwarf Fig*, called by the *French Figuier Nain*: The *Buds* of this Tree are very close set, and its Shoots short; its Fruit is large, and of a *Violet* Colour without, and *Red* within; 'tis a plentiful Bearer, and a very good Fruit.

6^{thly}, The *Burgeotte Fig*, an excellent Fruit in Taste, *large* and *flat* in Shape, of a *Violet* Colour without, and *Red* within, and a very good Bearer in *Autumn*.

Lastly, The small *Mignionne Fig*, called by the *French Petite Figue Mignionne*: Its Fruit is of a *brownish Blew* without, and *very Red* within, but small, being not much larger than the *Carnation Cherry*, and is a very good Bearer.

N. B. If *Figs* are planted in Tubes, as *Oranges* are, and in the *Winter* shelter'd in a *Green-House* from the *Cold*, &c. they will oftentimes produce *Figs* ripe in *May*.

N. B. That when any Kind of Fig at its Ripening, is observed to have a *Drop* hanging at its *End*, 'tis then in greatest *Perfection*, and should be immediately gather'd.

N. B. There are some *Figs* as do not discover their Ripening by a *Drop*, therefore when ever they are observed to *decay* or *flag* at the *Stalk*, you may depend upon their being ripe.

Figs must *not* be gather'd in the *Heat* of the *Sun*, therefore 'tis best to gather them in a *Morning* after the *Dew* is gone, and before the *Heat* of the Day is come on; and being kept in the *Fruitry* one Night after gathering, causes them to eat *much finer* than when first gather'd.

S E C T. X.

Of the Native Place, Name, Exposition, and Culture of the Plumb.

I. **T**H E native Places of the *Plumb-Tree* is *Armenia*, whose Latitude is about fourty two Degrees, and *Damascus* (formerly a Town of *Syria*) situated in thirty five Degrees Latitude, from whence they were first brought into *Italy*.

II. A *Plumb*, in *Latin* is called *Prunus*, or *Prunum*; in *Arabick* *Anas*, *Avas*, or *Hagias*; in *Italian* *Prune*, or *Succine*; in *Spanish* *Prunas*, *Andrinas*, or *Amexeas*; in *Dutch* *Pruym*; in *French* *Prune*; and by the *Germans* *Pflaumen*.

III. Altho' *Plumbs* will produce excellent Fruit from Dwarf, Espallier, or Standard Trees, yet there be many good *Sorts* as deserves even the best Wall the Garden affords; as the *Perdigon*, *Greengage*, &c. nay, all in general are vastly helped thereby.

IV. Its Culture. The *Plumb* delights in good Land, inclining to be rather strong and wet, than light and dry; and will ripen very well against *East*, *West*, *North-East*, or *North-West* Walls.

The

The *Season* for pruning is *January*, or *February* at furthest, and the *Manner* the same as that of the *Pear*.

When *Plumb-Trees* are *vigorous* and *luxuriant*, 'tis best to *plash* or prune them very late, and if need be, both *Operations* may be used.

Carefully mind to destroy all *Manner* of *Weeds*, *Suckers*, &c. in the *Spring*, and to nail up all useful *Branches*.

In *July* pick off the *Leaves*, and *let in the Sun*; but do it by *Degrees*, and thereby they'll receive their natural *Colour* and *Taste*.

About the End of *July*, the *London-Plumb*, *Plumb-Mordin*, &c. are ripe, after which comes all others in order, and continues till *September*.

Plumbs gather'd a Day or two before they are eaten, and kept in *Nettles*, eat much finer than when first gather'd.

S E C T. XI.

Of the Native Place, Name, Exposition, and Culture of the Apple-Tree.

I. ACCORDING to the Observation of Sir *William Temple*, on the Conquest of *Africk*, *Greece*, *Asia Minor*, and *Syria*, it appears, that soon after that Conquest the *Romans* brought into *Italy* all Sorts of *Mala*, which we call *Apples*, and from thence were sent into divers other Parts, and propagated as other Fruits, &c.

Amongst the great *Variety* of *English Fruits*, there is none so universal as the *Apple*; for be *Land* of a *hot* and *dry*, *wet* and *cold* Nature, one or other of the Sorts will produce Fruit; and where Land is good, in very great Quantity.

The Excellency of the Liquor extracted from this Fruit, is a sufficient Encouragement for its Propagation, exclusive of its profitable Uses at Table, in the Kitchen, &c.

Apples

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Apples are increas'd, being grafted on *Crab-Stocks*, as before deliver'd; and are generally planted *Standards*, *Espaliers*, or *Dwarfs*, and best when the Land is a *fresh strong Loam*, with a good Bottom of *Brick-Earth*.

If *Apples* are grafted on *Paradise Stocks*, they will bear Fruit the *second* or *third Year*, and are best for *Dwarfs* or low *Espaliers*. 'Tis a common Practice amongst most *curious Gardeners* to plant small *Apple-Trees* grafted on *Paradise Stocks*, in large *Flower Pots*, or *Tubes*, wherein they produce Fruit very plentifully, being kept in small *Open Heads*, or *Dwarfs*; which are very great *Embellishments* of *Entrances*, *Partares*, *Cabinets*, &c.

The *Codlin* is a Kind of *Apple*, increas'd from *Suckers*, taken from its Root in the latter End of *October*, or Beginning of *November*, and is an excellent Fruit, both for its Earliness of ripening, and good *Services* in a *Family*. It may also be increas'd by *Cuttings*, cut off in *March*, and planted under a *North Wall*. The *Apple-Tree* does no Ways delight in being pruned in the *Winter* with a *Knife*, the *Canker* being commonly the next as takes Place, which soon kills the Tree; therefore, I advise, that in *May* and *June* you carefully observe to *rub* or *pinch* off all *luxuriant*, &c. Branches, and tie in others fit for Use, and thereby your Trees will be preserved from that Distemper.

The *best Season* for planting this Fruit is, when its Leaves are just fallen, *viz.* in *October*, at which Time 'tis best to plant the *Cuttings* of *Paradise Stocks*, under a *North Wall*, which being kept clean from Weeds, and water'd in the *Spring*, if very dry, will be fit to graft on in three Years. Their native Place is *France*.

If *Golden Pippins*, *Nonpareils*, *Holland Pippins*, *French Pippins*, &c. were planted against an *East Wall*, and their pruning perform'd in *May* and *June* by *pinching*, as I before directed, their *Fruit* would not only be *much finer* in Taste, but wonderfully *larger* and beautiful.

The *Kernels* of *Apples*, sowed from such Fruit as were grafted on *Crab-Stocks*, and sown, most commonly produces a much worse Kind of Fruit than the *Mother-kind*, and very often perfect *Crabs* and *Wildings*. If you sow the *Kernels* as are sowed from *Apples*, produced by a Seedling without grafting, the
Fruit

Fruit they produce are feldom either *Crab* or *Wilding*, but are often as good as the *Mother-Fruit*, and sometimes (tho' very feldom) better.

S E C T. XII.

Of the Vine; its Names, Culture, &c.

THIS *Glorious Plant* the *VINE*, when cultivated, is called by the *Greeks* ἀμπέλῳ ὀινωφόρῳ; by the *Latins* *Vites*, *Vinifera*, *Sativa*, and *Culta*; by the *Arabians* *Karin*, *Karni*, or *Harin*; by the *Italians* *Vite Venefera*; by the *Dutch* *Wiingaert*, or *Wiinstacke*; by the *French* *Vigne*; by the *Germans* *Weinreb*; and by the *Spaniards* *Vid*, or *Parm*.

'Tis propagated by *Layers*, or *Cuttings*, which Works are to be done in *October*: And in the Operation you must observe, that three or four *Buds* at least be in the Ground; for 'tis from them their *Roots* put forth. In the Choice of *Cuttings* observe to take those as are of the last Year's Shoot, *strong* and *vigorous*, which cut to sixteen or eighteen Inches long, and plant under an East Wall, leaving but two *Buds* out of Ground, in Rows, about a Foot or fifteen Inches asunder; and in the Rows, at the Distance of eight Inches. When your *Cuttings* are thus planted, cover the ground between them with *Horse-Dung*, about five or six Inches thick, and if the *Spring* prove very dry, you must now and then give them Water, so as to keep them moist, which a *Vine* requires at its striking Root; and if your Land be warm and light, in two Years Time will be fit to transplant.

If the *Cuttings of Vines* be planted in the open Air, without the Help of any Shade, and are about two Foot, or two Foot and a half in Length, and all buried, two *Buds* excepted; such *Cuttings* kept moist in the *Spring*, will grow and thrive very well; but in this Operation, you must observe, that you lay the *Cuttings* in *sloping*, the lowest Part

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not to exceed ten Inches, or a Foot in Depth, and to bend the upper Part in such a Manner, as for the two Eyes or Buds as are left out of the Ground to stand Perpendicular.

The warmest *Exposure* is the best for the *Vine*, and therefore should be always defended by *Woods*, *Hills*, &c.

The best Soil for *Vines* is a rich warm Loam, mix'd with fresh hot Sand, or Gravel, or instead thereof, Sea-Coal Ashes, Wood Ashes, Brick-Rubbish, Lime, or Drift Sand. When you prepare Borders of this Mixture, they need not be more than four Foot in Breadth, or deeper than one Foot; for those Juices of the Earth as nourishes the *Vine*, lies very near to the Surface of the Ground.

The best Season for planting *Vines* is *October*, or Beginning of *February*, if the Weather be open; but of the two, I recommend the *Autumn* Planting before that of the *Spring*. When *Vines* are remov'd from a *Nursery*, &c. great Care must be taken to preserve the Roots from the parching Winds, and that they be not very dry at Planting. So soon as *Vines* are taken out of the Ground, they should be packed up with wet Moss, or wet Hay, and closely bound in Mats, which will preserve their Roots a long Time if need be.

When you plant *Vines*, prune the Ends of their Roots with Discretion, and to the Top or Head of the Plant leave but two or three Joints at most; and when in *April* they begin to shoot, make choice of the two strongest Shoots, which preserve, and the others displace; as also other small Shoots at all Times, that thereby those two Branches may have the whole Nourishment, which will enable them to produce Fruit much sooner than had they been weaken'd by other Branches as would have robb'd them of their Strength.

To plant *Vines* at such Distances as they will fill in Time, as eighteen or twenty Feet, (their Branches being laid in a horizontal Position,) is losing the Use of a great deal of Walling for several Years; therefore, to prevent such Losses, I advise that you plant your *Vines* at ten Foot apart; and when they meet, and want Room, to cut away so much of the intermediate Vine (*viz.* the middlemost of every three) as will give sufficient Room for the others to extend themselves. And although Mr. *Lawrence* discommends the Practice of now and then laying down Branches to strike Root, &c. yet I cannot but

but commend the *Practice*; for thereby, as *old Wood*, or *Plants fails*, they are immediately succeeded by those new ones, and the Wall kept full of Wood. The Objection made by Mr. *Lawrence* against those *Layers*, being directed perpendicularly, is but for the first Year; for the Shoots afterwards produc'd by them, may be led *horizontally*, or otherwise, as the *Pruner* pleases.

'Tis true, that the *horizontal Nailing of Trees* greatly checks the *Sap*, and causes the Branches of many Trees to bear much sooner; but for *Vines*, I am certain that although they are luxuriant, and nail'd exactly perpendicular, will in many Places produce wonderful Grapes, and in very great Quantity; witness the South-Wall of the honourable Mr. JOHNSTONE at *Twickenham*, next the Road leading to *Richmond* in *Surry*; whose Grapes are ever in the greatest Perfection, both for Goodness and Quantity, and are always nailed perpendicularly. I could mention divers other Places, who nails in the same Manner with great Success, but for the present let the preceding suffice.

The vigorous Nature of a Vine is such, that though the Branches are led up a Wall of twelve or fourteen Feet in Height, yet the Fruit at the Top hath sufficient Quantity of Juices for its Nourishment, and is not inferior to that as grows within three or four Feet of the Ground. To plant *Vines* against low Walls of four or five Foot high, as Mr. *Lawrence* directs, at his Distance of six or seven Yards, and not to make good with *Layers*, &c. would prove in the End to be a very great *Loss* and Disappointment to the Planter, which *Experience will prove*.

'Tis good to have your young *Vines* out of *rich Nurseries*, that is richer than wherein they are to be planted, that thereby at first Planting they may receive a small Check; for too great Vigour at first Planting is always bad.

The best Season for the *general pruning of Vines* is at the *Fall* of their *Leaf*; but if then neglected, not to exceed the Middle of *February* at latest. The most vigorous Branches are those as produce the Fruit, which must *carefully be preserved*, and the small fruitless Branches cut entirely out.

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Such Branches as are very strong may be allowed two Foot in Length; and others of less Vigour, to be shorter, as a Foot, fifteen Inches, &c. according to their Strength and Vigour.

In the Cutting of a *Vine*, observe that you cut about an *Inch* above the *Bud*, and that the Cut be on the *Back* thereof; so that when the *Sap* moves in the *Spring*, it by running may not hurt or damage the *Bud*; and observe further, that 'tis best to make choice of such Buds were you top a Branch, as will admit of the Cut or Slope-Part to be next to the Wall, as well as behind the Bud; for when the Cut is visible, it is not only more expos'd to the Prejudice of Weather, but is also a disagreeable Sight; therefore, if you make choice of fore-right Buds, they will answer the End.

In the Nailing of Vines, or any other Fruit-Tree, *never make use of Leather* for *Shreds*; the best is, *Lift*, or *Cloth*, and observe that you do not nail the Shred tight about the Branch, but leave room for it to swell in its Growth. The Distance that you nail the Branches of Vines one from the other, must not be less than nine Inches, nor more than one Foot.

The Fruit of *Vines* is always produced by the last Year's Wood, at one or more of the three first Buds from the old Wood; therefore when *Vines* are once got in a *fruitful State*, you need not leave their Shoots more than four or five Buds in Length at most.

For the well *Management* of *Vines* in *Summer*, observe this Rule, That no Kind of Branch be suffer'd to grow, as is not fit and perfectly necessary for Wood, Fruit, or Shelter.

Therefore in *May* be diligent to pick off all small weak Shoots, which will put out in many Places, and if not displaced, rob the Fruit of its Nourishment; also nail in all useful Branches, and in your *Vineyards* tie up the leading Shoots to Stakes. In *June* (not in *May*, as Mr. Bradley directs in his *New Improvements of Planting and Gardening*, as he calls them, pag. 8.) is the best Time to stop the *luxuriant Growth* of the *Vine*, by nipping off the Branches at two or three Joints beyond the Fruit, and to make choice of such vigorous Branches as are required to fill empty Places, to be nailed in, without being stopp'd by *Nipping* or *Pinching*, except they are of very
great

great Lengths: Also nail close to the Wall all Branches with Fruit, and displace all weak ones when they appear as before directed; but observe that the Fruit is *not* thereby *laid open* to the *Sun*, which will now either *destroy* or spoil its Growth.

N. B. *The best Grapes are always produced by vigorous Branches at the fourth or fifth Joint.*

In *July*, *Vines* are in their *full Strength and Vigour*; therefore keep them carefully pruned of false Wood, as is said before, that the Fruit may not be deprived of its proper Heat and Nourishment; and about the Middle of this Month examine all vigorous Shoots pruned at *Midsummer*, whereon you'll find secondary Shoots from their several Buds, which displace, the uppermost excepted, prun'd off at one or two Buds Length, to admit Nature's exerting herself in its last Shoot of *Autumn*, and to preserve the Loss of Fruit or Wood from those Branches.

'Tis absolutely necessary that strict Regard be had to *Summer Pruning*, that a sufficient Number of vigorous Shoots be laid in to *succeed* such *old ones* as will be cut out in the *Winter*; and although *Vines* will produce *Grapes* from *Knots of old Wood*, yet they are *never so good* as those produced from *strong and vigorous Branches*.

Great Care must be taken to tie up all useful Branches of *Vines* planted against *Espaliers*, or in *Vineyards*, and also to displace by *Pinching* all useless weak Branches, as directed for *Vines* against Walls.

In *August* give them the last Pruning, and keep the Fruit *close* to the *Wall*, discreetly shaded with Leaves, so as to partly expose them to the *Sun*, and preserve them from the *cold Nights*.

In *September* the *Vine* produces its *delicious Fruit*, which must be very dry when gathered, otherwise they soon grow moldy and rotten.

Grapes gather'd dry, and preserved from the Frost, will keep a long Time; but 'tis best to gather them a little before they are ripe, and to hang them on a Line, with the End of the Stalk seal'd with Sealing-Wax.

S E C T. XIII.

Of the Cherry, its Name, Culture, &c.

I. **I**T appears by the Observation of Sir *William Temple*, that the *Cherry* is a Native of *Pontus*, a Province in *Asia Minor*, first brought from thence *Ann. Rom. 683.* by *Lucullus* into *Italy*; and about one hundred Years after 'twas introduced into *England*. Its Name in *Greek* is κεράσιον; in *Arabick*, *Serasic*; in *Latin*, *Cerasus*, or *Cerasum*; in *Spanish*, *Cerasas*, or *Guindas*; in *Italian*, *Ciregie*; in *Dutch*, *Kriken*; in *French*, *Cerises*, or *Guines*; and by the *Germans*, *Kirschen*, or *Kirschen*.

Amongst the several Kinds of *Cherries*, the *May Duke*, *Holman's Duke*, and *Lukeword*, deserve a Place against the best *Wall*; the others will do very well *Dwarfs*, *Espaliers*, half and whole *Standards*, the *Morella Cherry* excepted, which is best against a *North-Wall*, and if preserved on the Trees till the End of *August*, becomes a rich and noble *Fruit* for the Table; for by its long hanging, loses most of its *Acidity*, or *Sourness*.

All *Cherries* are propagated from the *Black Cherry*, by being either *budded* or *grafted* thereon, and delight in a light rich Loam.

The less *Cherries* are pruned, the better they like it; but however, where weak or luxuriant Branches happen, they must be govern'd by the Knife; as also the Ends of leading Shoots, which must be shorten'd to eight or nine Inches. The best Time for this Work is *October*.

When *Cherry-Trees* take to bear very early, and grow but little, 'tis best to pull off most of the *Bloom*, and shorten the Branches, which will cause the Tree to shoot with fresh Vigour; or if your Trees are *Bark-bound*, what some call *Hide-bound*, 'tis best to slit open the *Bark* of the Body from Top to Bottom, and its large Branches also, with the Point of your Knife;

Knife; but observe to do it on the Side, and not in the Front of the Tree: Be careful to displace Suckers, and cut away all Tops of Branches infected with the *Black Fly*, &c.

In the End of *May* the *early* small *May-Cherry* is ripe, after which comes the *Early Duke*, *Holman's Duke*, and all others; of which the last are the *English*, *Carnation*, and *Morella*.

If *Duke Cherries* were planted against *North-East*, *North-West*, and *North Walls*, they would produce Plenty of Fruit when those of the *South-Wall* were all gone; but they must be covered in the *Spring*, when in Bloom, during the Time of cold Winds.

N. B. That the *Morella*, and *Early small May-Cherry* produce their Fruit at the very Ends of their Shoots; so that they must not be topp'd in Pruning, as other Cherries are.

S E C T. XIV.

Of Gooseberries, their Culture, &c.

GOOSEBERRIES, are a kind of Fruit as were formerly used for Sauce to *Green Geese*, and for that Reason, by the *Antients*, were called *Gooseberries*.

This Fruit is so agreeable in its Nature, as to be contented in any Soil wherein the *Cherry*, *Pear*, or *Apple* grows, and will live under their *Shade* with great Pleasure.

The best Kinds are those mention'd in my Catalogue of Fruit, which would be greatly improved, was they bred up in *little Dwarfs*, as we do *Apples*, *Pears*, &c. and the Branches not suffer'd to run a-crofs each other, or any to rise in the Middle; and besides the Improvement gain'd in the Goodness of the Fruit, they make a very agreeable Figure to the Eye, on which Account I place them in the Borders of the Fruit-Garden.

N. B. They are increased by *Suckers*, or *Cuttings*.

S E C T. XV.

Of Currants, their Culture, &c.

TH E several Sorts of *Currants* are three, (*Vide the Catalogue*;) which are in general increased by *Suckers*, and delight in the same Land as the *Gooseberry*.

If *Currants* were also bred in small *Dwarfs*, as I before mention'd of the *Gooseberry*, the Fruit would be greatly improved, both in Size and Taste, and their Forms very handsome in open Borders.

If the large *White* and *Red Dutch Currants* are planted and nail'd against a Full *South-Wall*, and the Wood kept thin, they will produce wonderful pleasant Fruit, and very large; so likewise if they are planted against a *North Wall*, they will produce good Fruit till the Middle of *December*.

In the Management of both *Gooseberry* and *Currant*, Care must be taken to keep them free from *old Wood*; for the best Fruit is produc'd by the *young Wood*, which ripens in *July*.

S E C T. XVI.

Of Raspberries, their Culture, &c.

OF *Raspberries* there be three Kinds, viz. the *Red*, the *Black*, or *Purple*, and the *White*; all which delight in good strong rich Land.

They are in general increased by *Suckers*, or *Runners*, and should be planted in single Rows at three Foot and a half Distance each Row from the other, and in the Rows at a Foot or fourteen Inches asunder.

The

The best Time to plant them is *November*, (and not *March*, as Mr. *Bradley* directs in his third Part of *New Improvements*, Page 50. for the drying *March* Winds would greatly hurt their Roots:) Neither will *Rasberries* succeed very well, as he says they do, when planted in beds, each having three Rows at a Foot and a half Distance from each other; for by their being so thick planted, they cannot be digged every Winter to let in Nourishment, &c. nor can they be helped with good Dung, or kept to single Roots, as they should be, to succeed (as he calls it) very well.

'Tis best to plant *Suckers*, or *Runners*, of one *Summer's Growth*, and to prune off the very small fibrous Roots, leaving the large Roots to about five or six Inches in Length, and the Top ten Inches, or one Foot.

When you prune the *Roots* and *Tops*, as before directed, take Care that you do not break off that Bud at the upper Part of the Root, as is to produce Wood for the next Year; for if that Bud is broke off, 'tis in vain to plant the Plant; therefore, as you plant *Rasberries*, be sure that every Plant hath its *leading Bud* at Bottom, and then there may be Hopes of Success.

The first Year they will produce Branches or Shoots about two Foot and a half high; which in the *Autumn* (if not prevented) will produce Fruit at their extreme Parts, which I believe is no wise advantageous to them; therefore I advise that such Shoots be topp'd as soon as the Bloom appears, except that the Curious is inclin'd to preserve the Fruit for the sake of its Novelty, more than its Goodness.

The second Year they will shoot with greater Vigour than the first; and the third Year greater than the second, &c. You must be very careful in destroying the *Suckers*, not only between Row and Row, but also between Plant and Plant in the Rows, and thereby you will have the Fruit in great Perfection.

Every Year's Wood makes its *Exit* immediately after it hath produced its Fruit, which *dead Wood* is best broken out in the *frosty Weather* of the approaching Winter.

The succeeding Shoots being now got up, are to be *topp'd* in *March*, cutting off all the upper Part as appears weak, so that the Remains will be about three or four Foot high.

N. B.

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N. B. Before I conclude the Discourse of the *Raspberry*, I must admonish you not to plant this Fruit in Land, as is troubled with the Weed called *Vervine*, or *Bearvine*, which is of the climbing Tribe, and will actually smother and spoil both Fruit, Root, and Branch, in a very short Time. *Couch-Grass* is also a *very bad Weed* to displace, when once got amongst the Roots of your *Raspberries*. *N. B.* The *Raspberry* ripens in *July*, and continues for three Weeks or a Month, and sometimes longer, when on *rich strong Land*. Note also, that *Horse* or *Cow-Dung*, well-rotted, is very good for *Raspberries*; but *Sea-Coal Ashes*, if dry Weather comes on them, is *present Death*; therefore Care must be taken to avoid that Manure.

S E C T. XVII.

Of Strawberries, their Culture, &c.

OF STRAWBERRIES there be divers Kinds, as the *Scarlet*, the *Wood*, the *Hautboy*, the *Green*, and the *White*; which two last are not so preferable as the preceding three, whose Culture I am now to explain. 1. The *Scarlet Strawberry* is a great Bearer, and an excellent Fruit; it delights in a moist, fresh, mellow Land, and loves much Water when in Bloom. The best Season to plant *Strawberries* in, general is at *Bartholomew-Tide*, if the Weather permits, or as soon after as possible; and by this early Planting they will produce half a Crop the first Year.

N. B. The wonderful Discovery of Mr. Bradley's, of his making Plantations of *Strawberries* in April and May with good Success, and to gather Fruit from them, so prodigiously soon after, as the second June following, is very surprizing.

I cannot conclude the Culture of this Plant, without mentioning, that I have made Plantations of them (even) in *June* (when the Fruit has been near ripe on the Plants) with good Success; and

and soon afterwards gather'd very good Fruit from them. And what then? why nothing; for 'tis, and has been for many Years past, a common Practice, to my certain Knowledge, amongst divers Gard'ners to plant at that Time, their Multitude of Business not admitting of planting sooner. But to return:

Strawberries in general, do not love *rich Land* equally; therefore that Preparation of Soil as will suit this Kind, will *destroy* or *ruin* another; as for Instance, *Land* richly dung'd produces the best *Wood* and *Hautboy-Strawberries*; and if *Scarlet-Strawberries* be planted therein, the Product will be nothing but an *Infinite Quantity of Leaves*, with little or no Fruit; and on the contrary, if *Scarlet Strawberries* be planted in fresh mellow Land without Dung, they will produce Fruit in great Plenty. Hence it appears, that the judicious Mr. *Bradley* knew nothing of the Culture of *Strawberries*, when he so much depended upon the supposed Practice of the *HammerSmith Gardeners*, whose Rules, as he calls them, he hath prescribed to the World, for the Management of *Strawberries*, without taking the least Notice of the different Soils they delight in. *Vide his New Improvements*, Part III. Page 48.

His Directions there given is general, *viz.* the same Land for the *Scarlet* as for the *Wood* and *Hautboy*, which must be dung'd too with *Horse-Dung* and *Sea-Coal Ashes*, and digg'd or trench'd in the Ground in *February*, and then to plant the *Strawberry Plants* or *Runners* (by him called *Slips*, a new Term) therein, at about *eight Inches* apart. Now all Mankind as are *Gardeners*, knows that the *Scarlet-Strawberry* and *Hautboy* are never planted nearer than a *Foot* one Way, and *fifteen Inches* the other, at least, and very often *eighteen Inches*: But for *Wood-Strawberries* his Distance of *eight Inches* is very right, and his Preparation of Land also, if they have no other *Strawberries* at *HammerSmith*, than *Woods* and *Hautboys*. I own I have made a long Digression, and it is high Time to return to to the Culture of *Strawberries* in general, which is the Subject that led me into it.

Scarlet-Strawberries must be planted in Rows, about fifteen or eighteen Inches apart, and their Distance in the Rows one Foot. They must be carefully *string'd* all *Summer*, and *digg'd* between in the *Winter*; and being thus kept in single Roots, will

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produce wonderful fine Fruit very early, for the Space of four or five Years, but not longer. If this Kind of *Strawberry* be admitted to run thick in a Bed, they will produce fine coloured Fruit, but not so soon as the *single Roots* by a Fortnight, and in dry Seasons are very apt to burn up.

The *Hautboy* hath the same Duration and Management as the *Scarlet*, it differing only in the Goodness of Land.

The *Wood-Strawberry* delights in a very rich Land, and are planted in Beds, somewhat more than three Feet wide; their Rows from each other being about eight Inches; and as the *Scarlet* and *Hautboy-Strawberries* are generally kept to single Roots, these are let run together in their Beds all in a Mat, and the Alleys between them digg'd in the Winter.

N. B. That when you plant *Wood-Strawberries*, 'tis best to plant the Runners as are got from Woods, where the Land as they grow in is very poor, and not such Runners as may be had from old planted Strawberries of the Garden, for they degenerate in six Years Time.

I cannot by any Means commend the Practice of the *Hammer-smith Gardeners* (as mention'd by Mr. Bradley, Part III. Page 49.) of their planting *Savoy*s and *Cabbages* for *Winter* in the Alleys of the *Strawberry* Beds, whose Roots doth very much exhaust the Goodness of the Ground, and beggar the *Strawberries* growing on the Sides of each Bed.

Wherever Plantations of *Strawberries* are made, great Care should be taken to have *Plenty of Water* very easily whilst they are in *Bloom*, and during the Ripening of their *Fruit* also; otherwise in dry Seasons, for Want of Water, the *Crop* will soon be over.

If *Strawberries* of three Years Growth be planted in Flower-Pots, and placed in a *gentle Hot-Bed*, about the Middle of *January*, they will produce Fruit in *March*.

You must observe in their Management, that they are *not overheated*, that they are not confin'd too much, and *destroy'd by the Steam*, but give them enough of *Air*, so as not to let in *Frosts*, *cold Winds*, &c. that they have *moderate Waterings* with warm Water when in Bloom, and not stifled for want of *Air*.

S E C T. XVIII.

Of Barberries, their Culture, &c.

OF BARBERRIES there are *two Kinds*, the one with *Stones*, the other *without Stones*; which last is esteem'd the best. The Soil it delights in, is a good mellow Loam: 'Tis increas'd by *Suckers* or *Layers*, and makes a beautiful Hedge. The Bloom of this Fruit appears very *beautiful* in the *Spring*, as well as its Clusters of *Red Berries* towards the *Autumn*, which must then be gather'd for Use when the *Dew* is off, and are perfectly dry.

S E C T. XIX.

Of Walnuts, Chesnuts, Philberds, and Hazel.

(1.) **O**F WALNUTS there be divers Kinds, as the *Bird-Walnut*, whose *Kernel* is the exact *Shape of a Bird*, and therefore so called. (2.) The *French Walnut*, a Fruit of a very large Growth, thick shell'd, its *Kernel* but small, and very insipid, and therefore much better for pickling than for the Table. (3.) The common *English Walnuts*, of which some are very good, others good for nothing, &c. as 'tis in all other Fruits in general. But their Culture is all the same.

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I. In order to obtain good *Walnuts*, I advise, that you make Choice of the very best you can find, both for Goodness of *Kernels* and *Thinness* of *Shell*.

The *Mother-Tree* being pitch'd on, gather its *Nuts* when they are observed to fall from the Tree, and lay them by till their *Green Husks* cracks; at which Time peel them off, and dry them in a convenient Place, keeping them *turn'd* every Day, and be sure that no Water comes near them at any Time, for that will destroy the Kernel. Your *Nuts* being dry'd, put them into a Bed of *moist Sand* placed in the *Green-House*, *Tool-House*, &c. where *no Wet* can come to them.

About the Beginning of *January*, if the Weather be open, *moisten the Sand* moderately, which will cause them to prepare themselves for planting in the Beginning of *February*, at which Time they are to be placed in good fresh Land that is *not hot* and *dry*, at the square *Distance* of *six Inches*, and about *three Inches* in Depth.

'Tis the Practice of many to plant or sow them in their *Husks*, and to *soak* or steep them in Water; which I can no wise commend; for, to my Loss, I have had the Experience.

During all the first and second Years (for so long they must remain in the Seed-Bed) keep them very clean from Weeds, and in very dry Seasons let them have moderate Waterings; 'twill greatly advance their Growth.

At the End of two Years take them out of the Seed-Bed, and prune of all *Tap* or *Downright Roots* and Side Branches, but *never* touch the *leading Shoot*; then plant them out in the *Nursery* in Rows at three Foot apart, and the Plants in the Rows, at eighteen Inches asunder, keeping them clear from Weeds, and digg'd every *Winter*, to keep the Ground mellow, and let the Winter's Rains to their Roots. When your Trees are got to be five or six Foot high, they may be *inoculated* with any Kind you approve off, which will cause them to bear much sooner. When you plant a *Walnut-Tree*, observe to prune the End of every Root, to cut away all as are inclinable to grow downwards, to place every Root as near a *Horizontal Position* as you can, and as shallow as conveniently may be; for 'tis the *want* of *Horizontal Roots* as occasions their long Growth before they bear Fruit; and that you prune off all Side Branches, but never prune or top the Head or leading Shoots. And the same must be observed

served in the Chesnuts, and all other Trees as have a large Pith. N. B. I advise, that *Walnut-Trees* be forthwith planted with all possible Expedition after taking up, for their Roots are of such a *spongy Nature*, that they are presently *mouldy* and *dead*; therefore till they are planted, preserve their Roots from *Winds*, *Sun*, and *Air*.

The proper Season for planting the *Walnut* is *October*. It delights in a very *deep Soil* of a *dry rich Nature*, on a *gravelly Bottom*. 'Twill also thrive on a *Gravel* mix'd with *Loam*, or on *Clay* naturally mix'd with *Stones* or *Chalk*, but will not prosper in *shallow Land*, or on a *stiff Clay*.

II. The *Chesnuts*, both *Spanish* and *Horse-Chesnuts*, are Trees as covet much Room to extend themselves, and are very beautiful Trees, especially in their Time of Bloom.

For the Propagation of these Plants, Care must be taken to procure the *Nuts* at the Time of ripening, and to take their Husks off, as directed for the *Walnut*; that they be perfectly *dried*, and put into *Sand* a little moist, where they must remain till the Beginning of *February*, not forgetting to give them a little Moisture about *Christmas*, or First of *January*, to prepare them for planting at that Time. The Manner of planting them is exactly the same as the *Walnut*, and delights in the same Soils. This Tree is very subject to put out many Side-Branches near the Bottom, which will grow if laid in the Ground, but never makes such good Trees as those raised from Seed.

N. B. That you do not steep the Nuts in Water, (as many do;) for such Nuts as these as are not of a quick Growth, are killed thereby, the Water causing the Kernel to swell to hastily, and crack before the *leading Bud* has prepared it self; and besides, it often *mouldies* and rots the Kernel entirely. Therefore have special Regard to all Seeds as are not of a quick Growth, that they have not too much Wet at the first setting out.

III. Of *Hazel* or *Philberds*, which are excellent Fruit in their Season.

They are increas'd by *Nuts*, as the preceding, or by *Suckers* or *Layers*: They will thrive in most Kinds of Soils, provided they

they are not too *wet*, but best on *dry Ground*; therefore I recommend them for *Hedges*, planted on *dry Banks*. There is two Kinds of *Philberds*, viz. the *White* and the *Red*, of which the *Red* is the most valuable.

S E C T. XX.

Of Quinces, their Culture, &c.

AMONGST all the several Fruits for the *Kitchen* and *Conservatory* Uses, none are more *delicate* than the *Quince*.

Of *Quinces* there are six Sorts, viz. the *Portugal Apple-Quince*, the *Portugal Pear-Quince*, the *Barberry-Quince*, the *English-Quince*, the *Lyons-Quince*, and the *Brunswick-Quince*.

1st, The *Portugal Apple-Quince*, a fine, large, yellow Fruit, tender, and soon boiled, and is esteemed the very best.

2dly, The *Portugal Pear-Quince*, as good as the former, but different in Shape, it being of the Form of a Pear.

3dly, The *Barberry-Quince*, an excellent Fruit, but small.

4thly, The *English-Quince*, the very worst of all: 'Tis a harsh Fruit, and covered with a Coat of *Down* like *Cotton*.

5thly, The *Lyons-Quince*, a fine, large, yellow Fruit. And,

6thly, The *Brunswick-Quince*, a fine, large, white Fruit.

N. B. That the four *last* are all inferior to the two *first*.

The *Quince* (as many of the preceding Fruits) hath great Variety of Names: In *Greek*, 'tis called *μηλιά κυδωνία*; in *Latin*, *Malus Cydonia*, or *Malus Cathonea*, from an Island in the *Grecian Sea*, from whence 'tis said to have been first brought: But *Pliny* affirms, that it received its Name of *Malus Cydonia* from *Cydone*, a Town in *Certe*: The *Arabs* call it *Seffargel*; the *French*, *Pome de Coing*; the *Spaniards*, *Membrillio*, and oftentimes *Marmello*; the *Italians*,
Melo-

Melocotognio; the Germans, *Kuttenopffel*; and the Dutch, *Que-Apple*.

This Fruit is raised either from *Layers*, *Suckers*, or *Cuttings*, and delights in a *moist Soil*. 'Tis best when grafted, although it is a natural Fruit; for by the Check given to the Sap thereby, it produces Fruit much sooner.

N. B. That the Cuttings, or Cions, must be taken from an old bearing Tree, as is of the best (or at least a very good) Kind.

The Season for planting this Fruit-Tree is *October*, *November*, &c. as for other Fruit-Trees.

S E C T: XXI.

Of the Mulberry-Tree, its Culture, &c.

OF *Mulberries* there are two Kinds, viz. the *Black* and the *White*: The *Black Mulberry* is a Tree of a very slow Growth; but its Fruit is *excellent*, and 'tis a very great Bearer. This Kind delights in good mellow Land; and is best increas'd by *Layers*; wherein observe, that you let the *Layers* remain upon the *Stools*, or *Mother-Plant*, for *two Years* after laying, but best when three Years; for the *Roots* are not perfected in the first Year; and therefore if you take them up (as is usual) at one Year's End, 'tis very seldom that ever one in ten comes to any Thing. The Time to lay them down is in *March*; but 'tis best to plant them at the *Fall of their Leaf*, and to well mulsh them with *Horse-Dung* afterwards, to preserve their *Roots* from the *Winters Frosts*. In the training up this Plant, you must observe the very first Year of its Shooting, to place a straight *Stake* perpendicular by its Side, against which the Shoot must be tied with *Bast*, *Mat*, &c. For the Nature of this Tree is such, that if this Care is not taken, 'twill grow very crooked and deformed, as they generally are when young in most Places. If *Cuttings* of this Plant are put
in

in the Ground in *March*, and not taken up again till two Years after, they will make good Plants, But observe in the Operation, that the Cuttings be *two Foot at least* in Length, that they be placed *sloping* in the Ground, so as not to be in any Part deeper than one Foot at most, leaving but *two Buds* out of the Ground; and though the *Mulberry* is of such a slow Growth, as never to produce (or at least very seldom) Shoots of one Year, two Foot in Length, yet that is not to be regarded: The two and three Years Wood, under the last Year's Wood, is as good for this Purpose as any. 'Tis said, that this Plant is raised from Seed also; but I never saw the Practice, and therefore can say nothing thereof.

The *White Mulberry* is of a much more vigorous Growth than the *Black*: It delights in good Land as the other, and is increased by *Seed* or *Layers*; but its Fruit is *very insipid*, and 'tis a bad Bearer; so that upon the whole, I cannot recommend this Plant, except 'tis for Variety's sake, and to help fill up the Quarters of a *Wilderness*, or for the Use of its Leaves for the Silkworms. I cannot but acknowledge that I am of the same Opinion as the ingenious Botanist Mr. *Bradley*, who, in his *New Improvements*, Part iii. Page 19. believes, That if the *Black Mulberry* was either *grafted*, *budded*, or *inarched*, upon the *White Mulberry*, much finer Trees might be raised, and in much less Time than by *Layers*, *Cuttings*, or *Seed*, the common Way.

S E C T. XXII.

Of the Cornelian Cherry.

THIS Kind of Fruit is very *beautiful* in a *Wilderness*; 'tis increased either by *Layers* or *Seed*, viz. its *Stones*, which oftentimes lie two Years in the Ground before they spring. The *Layers* are to be laid down in *February*; and the *Stones* to be sowed in a Bed of fine Mold, cover'd about two Inches thick, as soon as the Fruit is ripe.

SECT.

S E C T. XXIII.

Of Medlars.

MEDLARS are a pleasant Fruit, whereof there are several Kinds, *viz.* the *Common English*, a small Fruit; the *Dutch Medlar*, a large Fruit, and a good Bearer; and the *Neopolitan Medlar*, a Fruit without Stones, very plentiful in *Italy*, and but a Stranger to our *English Climate*. They in general love a rich Soil, and are propagated by being either grafted on the *White* or *Hawthorn* in *March*, or inarch'd in *May*, or budded in *July*.

S E C T. XXIV.

Of the Service-Tree.

THE SERVICE makes a glorious Tree, and is very beautiful when planted in Walks; they produce fine Clusters of Fruit in *September* and *October*, which, when ripe, are as if they were rotten, though not so. This Tree is propagated by *Suckers* or *Seed*. If you increase them by Seed, when the Fruit is ripe rub off the Pulp, by rolling them in Sand; after which dry the Stones or Seed in the *Sun* or *Air*, and put them into Sand, as directed for the *Walnut*, and in *January* sow them in a moist Border, covering the Seed about two Inches thick with fine Earth.

When they have been *two Years* in the Seed-Bed, transplant them into a *Nursery*, (as the *Walnut*,) always minding to keep them clean from Weeds; and if your Border has an *East Exposition*, 'tis much better than to be fully expos'd to the *South Sun*.

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Sun. It delights in rich strong Ground, and when grown to *six Foot high*, should be *budded*, with Buds taken from a Tree, as is known to be of a *good Kind*: They will produce Fruit *much sooner*, in *greater Plenty*, and much finer in Taste.

COROLLARIES, or additional Directions.

I. **W**HEN at any Time 'tis said that a particular Fruit is best against a *South, East, or West Wall*, it is not to be understood that those Walls must be *direct* to those *Cardinal Points*, but to be within the *Declination of ten Degrees*, or *fifteen* at most, either *Eastward* or *Westward* of *South Walls*, or to the *South* of *East and West Walls*.

II. The *East Exposition* is better than the *West*, because the early Rays of the *Sun* disperses the *cold Dews* from off the Fruit in a Morning, which the *West* is chill'd with, being not dispersed till late in the Day.

III. If Borders for Fruit-Trees be well prepared with fresh *untried Earth*, (such as is mention'd in the Section of Planting,) and made *six Foot broad*, and *fifteen Inches* in Depth, 'tis sufficient for any Fruit-Tree.

IV. Observe that the Earth wherein young Trees are planted, be not mix'd with new *Dung* of any Kind; for 'tis *Poison* to the Roots of every Tree, and very often present Death.

V. *Gravel-Walks, Brick-Pavements, &c.* before Walls reflects an additional Heat to them, and greatly helps the Ripening of the Fruit.

VI. *Brick-Walls* are the best for Fruit, as well as the most beautiful: Their Height above Ground should not exceed *ten Feet* at most. 'Tis much better for all Wall Fruit in general to be planted thin, extending themselves *horizontally* to a good Length, than to be planted thick, and be carried *perpendicularly*, and in a small Time *rob* each other of their proper Nourishment, as has been observed before.

VII. If *possible*, keep all new-planted Trees well water'd, during the *Months* of *April*, *May*, *June*, and *July*.

VIII. All Fruit-Trees planted for to make *Dwarfs*, must have their *perpendicular Shoots* pinch'd off in *Spring*, that thereby they may break out into *Side* or *Horizontal Branches*, and form the Tree desired.

IX. *Apples*, when in *Dwarfs* or *Espaliers*, must have the same *Pruning* as the *Pear*.

X. All Kind of *Dwarf-Trees* must be kept open, entirely free from Wood, as are not *horizontal*, and their Height should never exceed five Foot.

XI. To preserve Fruit in its Bloom, place *Pannels* of *Reed* (of the Height of your *Wall*, and about four Foot in Breadth) at about twenty Yards Distance from one another; but don't fix them square to the Wall, for that will rather confine the Winds than discharge them: If the acute Angle be about thirty five or forty Degrees, the Wind will slide away easily, which otherwise, when very strong, would tear them all to Pieces, and especially those of a *South Wall*, when the Wind is at *East* or *West*.

XII. To preserve *Fruit* from *Winds*, whose Course is not parallel, but rather opposite to a Wall, 'tis best to cover the *Trees* with *Mats*, or *Sale-Cloths*, old *Blankets*, &c. and also in Time of *Frosts*: But always observe to uncover them in the Day-time, if it does not freeze, or cold cutting *Winds* blow, which must always be guarded against, be it *Night* or *Day*, 'tis the same, all ought to be cover'd.

N. B. When you nail up those Coverings, be sure that you secure them by Nails, that the Wind don't blow them loose, and by beating and flapping against the Wall, knock off most of the Blossoms.

The several Inventions lately publish'd of *horizontal Shelters*, &c. are of some Use in still Nights; but when the Tree is preserved, as aforesaid, which by divers *Experiments* I have

found to be the very best Way, they are of no Use: Neither do *Dews* or *Rains* always fall perpendicular, (tho' 'tis their natural Course so to do;) for by the Situation of *Winds* are obliged, when they blow, which is almost always, to steer such Courses as they direct, and thereby affect the Wall-Fruit in an *Oblique*, and not a *perpendicular* Position *always*, as supposed.

And besides, 'tis evident, that although Dews are prejudicial when frozen on Trees in the Spring, yet when the Frosts are gone, they are a very great Nourishment to Fruits; and as Mr. Lawrence did but only receive a Hint of those Horizontal Shelters from an ingenious Gentleman, of or near Chelsea, who first mentioned them to him, 'twas something very odd, that the Practice thereof should be recommended before it had been proved.

XIII. 'Tis too often seen that many Fruit-Trees are planted in a Soil as they do not delight in; therefore at such Times observe what Fruits do agree best with such a Soil, and convert your Tree to the same by *Grafting*, *Inoculation*, &c.

XIV. There is nothing so much *adds to*, or *subtracts from*, the Goodness of Fruit, as the *Goodness* or *Badness* of Soils.

XV. *Hot* and *dry Summers* causes Fruit to ripen before its *natural Season*, and *wet* and *cold Summers* the contrary; therefore when Fruits have not their natural Seasons, they cannot have their *true rich Tastes*.

XVI. A *dry Summer* causes Trees to bear Plenty of Fruit the succeeding Year, and a *wet Summer* causes a great Production of *Wood*, and but little Fruit.

XVII. When a Tree grows *crooked*, or inclining downwards, cut or score the Bark *horizontally* in divers Places in the confined or hollow Part of the Tree, and in a short Time, if the Tree be young, 'twill become *streight*, and grow upright.

XVIII. To prevent tempestuous Winds from injuring new or old Plantations of Fruit-Trees, you must plant substantial and lofty Espalier Trees and Hedges, on the West and North Parts of your Gardens.

The

The Kinds of Trees necessary for this Work are Chestnuts, Walnuts, Limes, Elms, Pine, *Scotch Fir*, &c. (whose Manner of Planting, &c. follows in its proper Place of Forest Trees in the succeeding Part.)

This Work ought to be first done, that when the Fruit-Trees are planted, they may be defended from all such Injuries.

The proper Places to plant these Espaliers of Defence in, is without the utmost Walls at about fifty nine or sixty Foot Distance from the Wall, in Rows tolerably thick, *viz.* at the Distance of ten or twelve Foot in the Row; and 'twill be best to plant two Rows at least, or three, at the same Distance from one another in such a Manner, as for the Trees in the second Line to stand opposite to the intermediate Spaces of the first, and thereby every three Trees will constitute an equilateral Triangle, and the Heads of the second Line close those of the first, and the like of the third to the second, &c.

When you plant three Rows of Trees for an Espalier, observe that those of the tallest Growth are placed in the backmost Line, those of the middling Growth in the middle Line, and most of the shortest Growth in the first Line; and if the Bottom be filled up with Lawrel, 'twill make an admirable good Espalier of Defence.

Espaliers of this Kind checks the Violence of tempestuous Winds, much better than a Brick-Wall, which being close and compact, reflects back the Winds, and oftentimes destroy or greatly injure tender Plants; but when such Tempests beat against these Espaliers, they easily comply with its Force, without a direct Repulse, (as a close Wall must do,) or prejudice any Tree which they are planted to defend.

XIX. When Walls are built against Terrass-Walks, they should be built double, that is, that Wall as supports the Weight of Earth, must stand about eighteen Inches backward behind that, against which you plant your Fruit-Trees; and when those Walls are brought up near to their Height, an Arch must be turn'd from one to the other, in which, at every fifty or sixty Foot, 'tis good to leave small Air-Holes, to let out the Damps, whose ill Effects would injure the Fruit-Trees.

N. B.

New Principles of Gardening.

N. B. That most of those Fruits mentioned in the Catalogue are now growing in the Gardens of the Honourable *James Johnston* at *Twickenham*, in the County of *Middlesex*, Latitude 51 Degrees, 32 Minutes, whose great Perfections plainly demonstrate the indefatigable Care and Judgment of the ingenious *Mr. John Lee*, Senior, Gardener to that worthy and much honoured Gentleman, by whose judicious Management all those Fruits are now arrived to the greatest Perfection of Beauty, Strength, and Fertility, as Art with Nature are capable to produce.

I cannot well conclude this Section, without taking notice of the great Happiness a Gentleman possesses, when he is so well fix'd with a skilful industrious Gardener, by whose Judgment and Care he is daily enjoying the Pleasures and Advantages of the best Fruits, Herbs, Sallets, &c. in the greatest Perfection, which Recompence is all as can be receiv'd for the Expences and Labours thereof. And on the other Hand, how unhappy it is for a Gentleman to have an unskilful Person descended from the Tail of a Coach, Stable, &c. who taking upon him, first a blew Apron, and then the Name of a Gardener, assumes the Government of choice Trees committed to his Care, because he has been much acquainted with cleaning Knives, sweeping Stables, &c. which he thinks are necessary towards their Pruning, as well as making Hot-Beds, &c. without considering that those Trees and Plants were obtained with much Labour, long Time, and great Expence, which by his unskilful Hand shall in one or two Years Time be totally ruin'd, to the great Loss of his Master, and his eternal Shame.

I say where Misfortunes of this Nature happen, which is too frequent, 'tis a very great Loss and Disappointment, and a Crime unpardonable; and therefore I cannot but take the Liberty to say, that a good Gardener deserves a much greater Respect and Encouragement than that of Stewards, Butlers, &c. who oftentimes undeservedly possess a much larger Share thereof.

S E C T. XXV.

How to preserve Winter Fruit after Gathering.

IN the Gathering of all Kinds of Fruits, as I observed before, great Care must be taken that they are perfectly dry, otherwise they will rot presently; and that they hang upon the Trees their full Time; for if Fruit be gather'd before, 'twill shrink and become good for nothing. To know when it has hung its full Time, observe when the Fruit naturally drops off it self, now and then one, &c. also when Fruit will drop by an easy Touch, 'tis fully grown.

As you gather Fruit, be careful to place it in the Basket, that none be bruised, for Bruises cause them to rot instantly; as also, that you do not mix your gather'd Fruit with that that has naturally fell of it self, or by Winds.

That your fine Winter Pears may not be deprived of any Part of their Beauty, take Care in gathering to preserve their Stalks.

To prevent Fruit as is choice, from being bruised, in sorting the small ones from the large ones, let two Persons be appointed to gather it, the one gathering the large and best, and the other the small; or one Man may perform the whole, by gathering the best first, and the smallest at last.

When your Fruit is gather'd lay it in your Fruiterie, in middling Heaps, wherein they will sweat for a considerable Time, which must be observed; and when over, lay them on your Shelves with clean Wheat - Straw underneath them, or, for want of Shelves, upon the like Straw on the Ground, and of such a Thickness as to be easily examined, and the rotten ones pick'd out as they happen, which must be minded with great Diligence, at least, every third Day.

Your Fruit being thus plac'd, cover it up very close with clean Wheat-Straw, as is not in the least musty, &c. which will cause the Fruit to be the same; as also stop all Chinks, Holes, &c. to keep the external Air entirely out.

When hard Frosts happen, you must be very careful to keep out the Frost, and to cover close all your Fruit in general.

In short, the closer and warmer your Fruit is kept, the longer 'twill keep, and the better 'twill be.

N. B. That oftentimes Fruit is destroyed by Mice, Rats, &c. therefore guard against those Vermin by Traps, Cats, &c.

S E C T. XXVI.

Of the Planting Fruit-Gardens in a more grand and delightful Manner than has been done before.

I Having in the preceding Sections fully demonstrated the Management of Fruits in general, I shall now proceed to inform you how to lay out and plant a Fruit-Garden, in a more delightful and advantageous Manner than has been practised, or perhaps thought on by any.

The Form which I here offer is a Parallelogram, whose Dimensions are twenty Pole by six Pole, and its Quantity one hundred and twenty Rods, or three Quarters of an Acre exactly.

And as I before have plainly demonstrated that a South or South-East Wall is of all others the very best, therefore to that End I have placed the Wall P Q, within the Bounds of my Plan, whereby I receive the Benefit of the South-Side, as also the like of the Wall D E, for the Advantage of its North-Side.

The Disposition of the Whole is as following, viz.

I. The Line A B situated at the Parallel Distance of twelve Foot, from the North-Side of the Wall D E, is composed of
 3 Standard

Standard Cherries, Damson, and Mulberries; which Kinds of Cherries therein are so elected as to succeed those against the South Wall DE, and to continue the whole Season in great Plenty.

The Kinds and Number of Cherries therein planted, are, two Duke Cherries, two Early Flanders, two White Hearts, two Black Hearts, two Caroons, two Lukewards, one Bleeding Heart, two Cluster Cherries, two English Cherries, two Flemish Cherries, two Carnation Cherries, two Black Cherries of the large sort, with one Damson, and four Black Mulberries.

(2.) The Wall DE, hath on its North-side, First, seven sorts of Plumbs, *viz.* The Orlene, White Mogul, Greengage, Damazen, Maiter Claude, Plumb Mordin, and Violet, which succeeds others planted against South-East and West Walls. Secondly, eight Morella, and seven Duke Cherries; which last, if their Bloom be preserved in the Spring by covering, will produce Cherries when those of the South and other Walls are gone.

The South-side of this Wall is planted with all the best Peaches, Grapes, Cherries, Summer Pears, and Figs, whose Number and Kinds are as following, *viz.* First, of Peaches, one Red Magdalen, one Noblest, one Swish Peach, one Albemarle Peach, one Belcheverux, one Ann Peach, one Yellow Alberge, one Old Newington, one Early Admirable, one Minion Peach, one Montabon, and one White Magdalen; in all twelve. Secondly, of Grapes, one Muscat, two black Muscadines, two black Frontinias, two white Muscadines, one Cluster Grape, one Claret Grape, and one white Frontiniac; in all ten. Thirdly, of Cherries, one early May Cherry, one Holman's Duke, and one Luke-ward in all three. Fourthly, of Figs, the White and the Blue; in all two. Fifthly, of Summer Pears, one Buree, one Summer Bonchretien, one Gros Roussellet, one Vermillion Pear, one Royal Bergamot, and one Autumn Bonchretien; in all six.

(3.) The Wall PQ hath on its North-side twenty two Morella Cherries, which, with the eight of the other Wall makes thirty exact, and are what I suppose sufficient for the Service of any Family to preserve for Use in Tarts, Beer, Brandy, &c.

The South-side is planted with all the best late Peaches, the first excepted, Grapes, Apricots, Plumbs, and Winter Pears, whose Number and Kinds are as follow, *viz.* First, of Peaches, one Nivet Peach, one Bellgard, one late Purple, one late Admirable, one Catherine, and one Malecotune; in all six.

P

Secondly,

Secondly, of Grapes, one black Currant Grape, one Burgundy Grape, one July Grape, one Sweet-water Grape, and one Muscat Grape; in all five. Thirdly, of Apricots, one Turkey Apricot, and one Orange Apricot; in all two. Fourthly, of Plumbs, one Blue Perdigon, one white Perdigon, one Greengage, and one Musk Perdigon; in all four. Fifthly, of Nectarines, one Newington Nectarine, and one Roman Nectarine. Sixthly, of Winter Pears, one Winter Bonchretien, one Golden Bonchretien, one Spanish Bonchretien, one Colmar, one St. Germaine, one Winter Thorne, one Lachaferie, and one Virgoulee; in all eight.

(4.) The Wall EQ, is planted on its East-side with Plumbs to succeed those of the South; the Number and Sorts are as follow, *viz.* one Rochcorbon, one Reine Claude, one Queen-Mother, one La Loyal, one White Matchless, and one Imperatrice.

And against its West-side, four Peaches and one Plumb, to succeed those of the South Wall, *viz.* one Peach Royal, one Bourdine, one Swalse, and one Hative Peach, with one Greengage Plumb.

(5.) The Wall DP is planted on the East-side, with one Colmar Pear, three Baking Pears, *viz.* The Pickering, La Marquis, and Pound Pear, with one Orlin Plumb; and its West-side with Plumbs in general, two Figs excepted, *viz.* one Drapdor, one Queen-Mother, one White Fig, one Blue Fig, one Maitre Claude, and one St. Catherine.

(6.) The Wall GH is planted with the Satin, Ambret and Lanfac Pears on the East-side, and with two Orange and one Turkey Apricot on the West-side.

(7.) The Wall LO is planted on its East-side, with one Virgoulee, one Royal d'Flyver, and one Lachaferie Pears; and on its West-side with one Perfique Peach, one Temple Nectarine, and one Rambollion Peach.

(8.) The Espaliers AR and BS are planted with sixteen Codlings, and the Espalier RS with twenty eight Nonpareil, Golden Pippins, French Pippin, Holland Pippins, Kentish Pippins, and Kirton Pippens; of which the two first are to be ten of each and of the four last two of each Kind.

(9.) The Quarter F is encompass'd with an Espalier of Summer Pears, sixteen in Number; as also is the Quarter I, with

an Espalier of Autumn Pears, sixteen in Number; as also the Quarter K, with an Espalier of the like Number of the best Winter Pears.

(10.) Within the Quarter F is four Dwarfs, all Baking Pears; as also is in the Quarter K, *viz.* the Pickering Pear, Spanish Warden, English Warden, Perkinson's Warden, Black Pear of Worcester, Pound Pear, Cadillac, and Donvil.

(11.) The four Dwarfs in the Quarter I, to be White Figs.

N. B. That the Distance of the Espaliers from the Walls are fifteen Feet, therefore their Height must not exceed six Feet; all other Parts may be measur'd by the Scale annex'd.

Having thus explain'd to you the Manner and Nature of the Fruits being planted, so as for every Fruit to have its true Exposition and Succession, &c. I shall in the next Place draw up a Catalogue of the several Fruits planted therein.

I. Of the several Kinds of Cherries.

Early May,
May Duke,
White Heart,
Black Heart,
Carroon,
Early Flanders,
Bleeding Heart,
Cluster Cherry,

Lukeward,
Carnation,
Flemish,
English,
Large Black Cherry,
Morella.
Number of Kinds is fourteen.

II. Of Peaches.

White Magdalen,
Montabon,
Minion,
Early Admirable,
Old Newington,
Yellow Alberge,
Ann Peach,
Belchevereux,
Albemarle,
Swish Peach,
Noblest, Red Magdalen,
Persique,
Rambollion,

Peach Royal,
Bourdine,
Swalse,
Peach Hative,
Late Admirable,
Catherine,
Malecotune,
Late Purple,
Belgard,
Nivet.
Number of Kinds is twenty
four.

III. Of Nectarines.

Temple Nectarine,
Newington Nectarine,

|| Roman Nectarine.
|| Number of Kinds are three.

IV. Of Apricots.

Turky,
Orange,

|| Bruxelles.
|| Number of Kinds are three.

V. Of Pears.

Buree,
Summer Bonchretien,
Gros Roussellet,
Vermilion Pear,
Royal Bergamot,
Autumn Bonchretien,
Virgoulee,
Royal-d'Hyver,
Lachaferie,
Satin Pear,
Ambret,
Lanfac,
Colmar,
La Marquise,
Pickering,

|| Pound Pear,
|| Cadillac,
|| Donvil,
|| Black Pear of *Worcester*,
|| Spanish Warden,
|| English Warden,
|| Perkinson's Warden,
|| Winter Bonchretien,
|| Golden Bonchretien,
|| Spanish Bonchretien,
|| St. Germaine,
|| Winter Thorn.
|| Number of Kinds are twenty seven.

VI. Of Figs.

White and Blew. In Number two.

VII. Of Grapes.

White Muscadine,
Black Muscadine,

|| White Frontinac,
|| Black Frontinac,

Claret

Claret Grape,
Cluster Grape,
Muscat,
Black Currant,

Burgundy,
July Grape,
Sweet-water Grape.
Number of Kinds are eleven.

VIII. Of Plumbs.

Orlin,
White Mogul,
Greengage,
Damazeen,
Maitre Claude,
Plumb Mordine,
Violet,
Rochcorbon,
Reine Claude,
Queen-Mother,

La Royal,
White Matchless,
Imperatrice,
Drapdor,
St. Catherine,
Blew Perdigon,
White Perdigon,
Musk Perdigon,
Damson.
Number of Kinds are nineteen.

IX. Of Apples.

Codlins,
Nonpareil,
Golden Pippin,
French Pippin,

Holland Pippin,
Kentish Pippin,
Kirton Pippin.
Number of Kinds are seven.

X. Of Mulberries.

Black Mulberry. In Number one.

This being done, I will now sum up the whole in general:

1 st ,	Of Cherries there are in Kinds	14
2 ^{dly} ,	Of Peaches	24
3 ^{dly} ,	Of Nectarines	3
4 ^{thly} ,	Of Apricots	3
5 ^{thly} ,	Of Pears	27
6 ^{thly} ,	Of Figs	2
7 ^{thly} ,	Of Grapes	11
8 ^{thly} ,	Of Plumbs	19
9 ^{thly} ,	Of Apples	7
10 ^{thly} ,	Of Mulberries	1

Total : 111 And :

New Principles of Gardening.

And all of different Kinds, and excellent good; to which we may add nine other Sorts of Summer, Autumn, and Winter Pears, as are to be planted in the Espaliers, about the three Quarters F I K, which requires forty eight Trees; so that the Sum of our Variety of good Fruit may be placed at 120 different Kinds at least.

The Number of Trees of each Kind, is

Cherries	26
Peaches	24
Nectarines	3
Apricots	5
Pears	86
Morella Cherries	30
Figs	8
Grapes	15
Plumbs	17
Apples	28
Codlins	16
Mulberries	4
Total	262

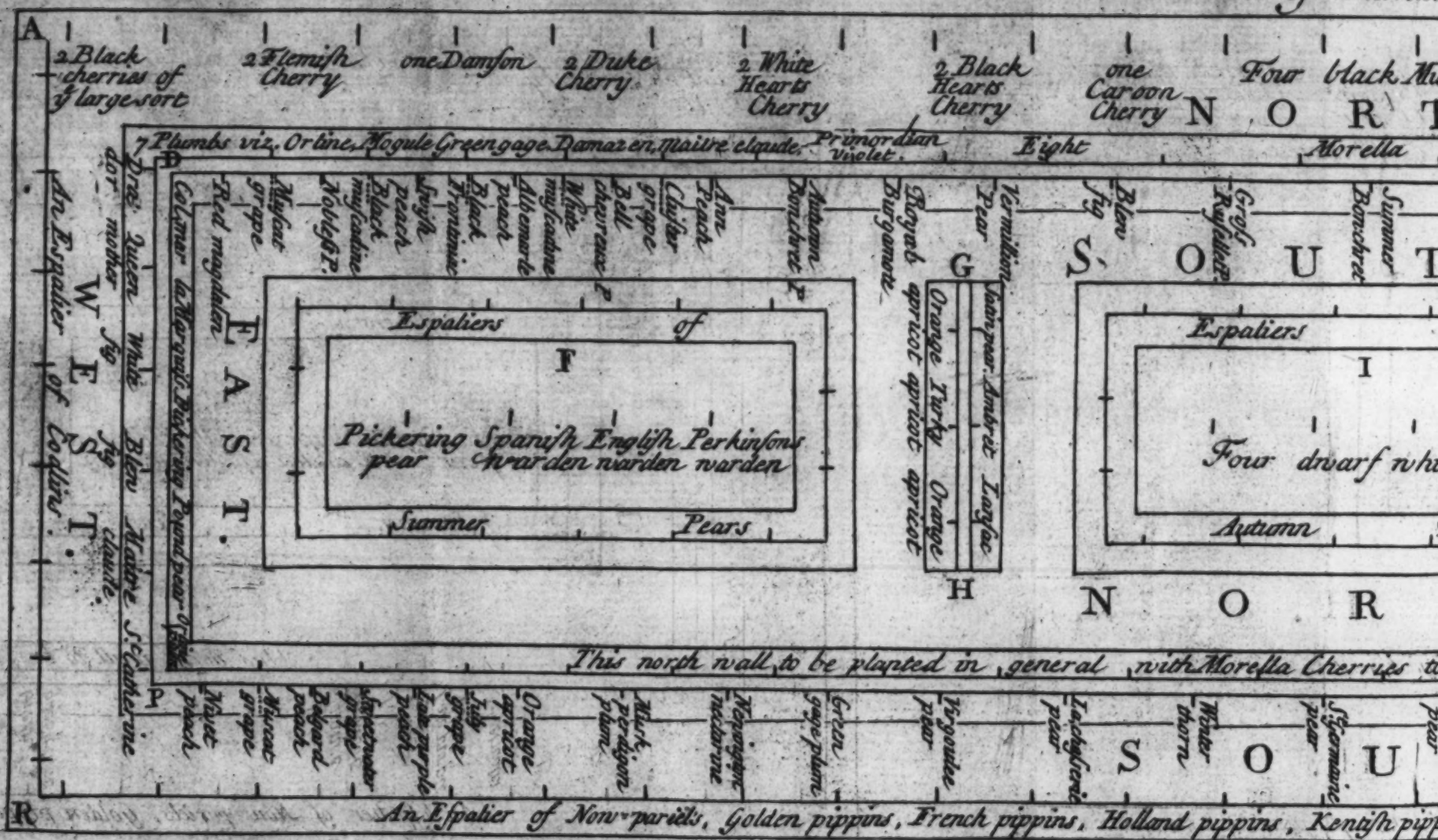
And every one at its proper Distance.

N. B. If any one thinks that the Number of Pears are too great, 'tis very easy to introduce other Fruit in their Stead; but for my Part, I can't but recommend them, seeing that they are all good Fruit, and ripen in such Order, as to furnish our Table nine Months in the Year plentifully.

NEW

A horizontal number line with tick marks at 10, 20, 30, 40, 50, and 60. A curly bracket is drawn above the line, spanning from the tick mark at 40 to the tick mark at 50.

A line of Standards



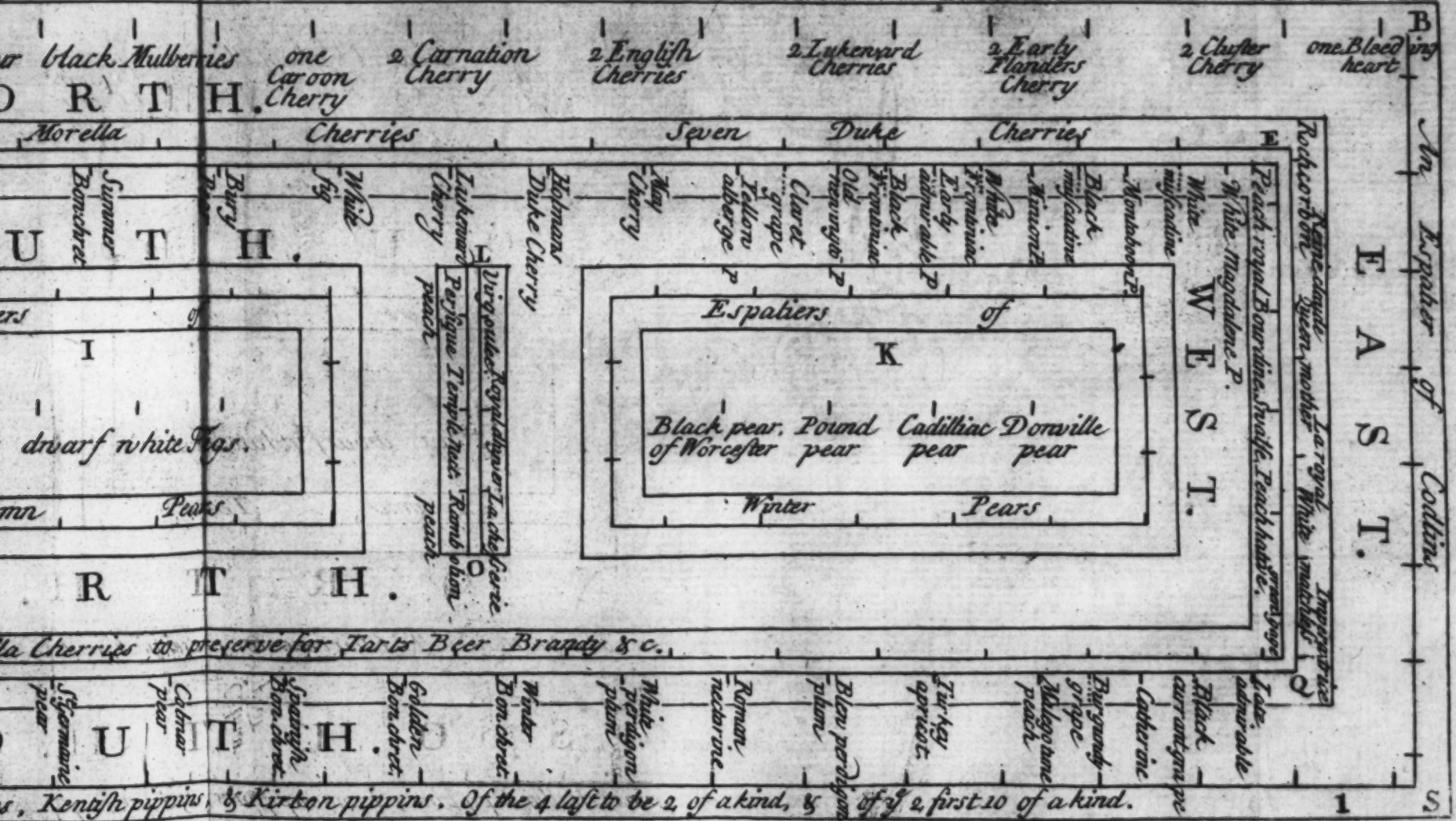


defend the Fruit from Northern winds.
le of Feet.

50 60 70 80 90 100

Land, ^{across road pole} 00:3:00.

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P R I N C I P L E S
O F
G A R D E N I N G.

P A R T. III.

Of Forest-Trees, their Culture, &c.

S E C T. I.

Of the several Methods by which Forest-Trees are raised.



Forest-Trees are raised either by Cuttings, Seed, Suckers, or Layers. (1.) By *Cuttings*, as the Sallow, Alder, and all the Kinds of Oziers and Willows; of which the *French* Kind is of great Use in the nailing of Wall-Trees, and of all other Willows the most toughest.

(2.)

New Principles of Gardening.

(2.) By *Seed*, of which is raised the Oak, Ash, Beach, Horn-Bean, Horse and *English* Chesnut, Walnut, Philberd, Quick-Beam, *Scotch* and Silver Fir, Pinaster, Holly, Yew, Elm, Lime, Service, Wild Cherry, Wild Pears, Crab, Maple, Sycamore, and Hawthorn.

(3.) By *Suckers*, such are the Elms, Poplars, Abeal, Maple, Birch, and Hazel, or Philberd.

(4.) By *Layers*, as the *English*, *Dutch*, and Witch Elms, Lime, Abeal, Platanus, Maple, Sycamore, and Philberd.

The several Kinds of Soil wherein Forest-Trees most delight in, are as follow, *viz.*

ALDER in boggy, drain'd, or dry poor Land.

ASH in the same, as also in chalkly Ground, moist Clay, craggy or flinty Ground, Gravel mix'd with Loam, or a good Thickness of Mould.

ABEAL on dry poor Land, hungry Gravel, and on wet strong Loam.

BEECH in some dry barren Soils, in chalky, dry, rich, sandy, hot, or flinty Land, Gravel mix'd with Loam, or deep in Mould.

BIRCH in some dry, barren, boggy, drain'd, or dry, sandy, hot Lands.

CHESNUTS in moist Clay, black, fat, or dry, rich Land, and on moist Gravel.

ELM on chalky and flinty Ground, Gravel if well mix'd with good Loam, a moist Gravel, and in any good loamy Land whatsoever, be it ever so rich; but it will not do on a hungry Gravel.

FIRS in some barren mountainous Lands, a fresh, moist, gravelly Soil, mix'd with Loam, and in a rich sandy Loam also.

HOLLY on a dry poor Soil, and a Gravel when mix'd with a tolerable Thickness of Mould, and in sandy rich Loam also.

HORNBEAN on dry rich Land.

JUNIPER in chalky Land.

LIME on moist rich Land, or a very fat Soil, but not dry, sandy, or hot Ground, for that causes them to drop their Leaves much sooner than other Trees.

MAPLE on dry, poor, clear Soil, and good rich Mould also.

OAK

OAK in black fat clayey, moist clayey, craggy, dry, rich, flinty Gravel, with Loam or Mould, and moist gravelly Lands, but not in a hungry Gravel.

PINE the same as Fir.

POPLAR on some dry, barren, chalky, dry and poor Lands.

SALLOW in moist Clay, dry and poor Land.

WALNUT in chalky, dry and poor, dry and rich Lands, or in Gravel mix'd with Loam.

WILLOW in boggy, drain'd, moist clayey, and moist gravelly Lands.

YEW in dry barren Soils, and those as are very rich also, especially a rich sandy Loam.

N. B. That although many of the above mention'd will grow and thrive in many poor and barren Lands, yet you are to understand that almost all sorts of Forest-Trees are much improved by a fresh fat Soil, or what we call a rich sandy Loam, if not mix'd with Dung, except 'tis well consum'd.

Therefore always beware of fresh Dung coming near the Root of any Tree, for 'tis perfect poison, and oftentimes present Death.

N. B. That Trees intended for flinty Lands, are best raised by their Seed sown therein, such as Oak, Ash, Beech, &c.

N. B. That Poplar will not thrive in chalky Ground; Abeals not on Clay; Willows not on dry poor Soils; Elm not on dry sandy hot Lands; Oak, Elm, Walnut, and Ash, not on a hungry Gravel; and none of the Aquaticks on any kind of Gravel, except that as is very moist.

N. B. That clayey Land produces the toughest Oak; and that in very strong Clay few Trees will live.

I having now explain'd by what Methods Trees are raised, and the several Soils they delight in, I shall in the next place lay down Rules and Directions to be observ'd in the several operations thereof.

First, Of raising Trees from Cuttings.

Trees rais'd by Cuttings are the Alder, Poplars, Willows, &c. wherein observe that the Ground wherein you plant them be of a moist Nature; that you take your Cuttings from the most healthy Branches; that their Thickness be not less than

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half

New Principles of Gardening.

half an Inch, nor more than an Inch Diameter; for when they are less than half an Inch, they are very weak, and have too much Pith for their Bigness, which oftentimes take wet and kill the Cutting; and when they are larger than one Inch 'tis long a healing over at top, and therefore longer exposed to the wet lying thereon; therefore at such Times 'tis best to put a little Wax on the Cut. That their Length be about three Foot, of which one third to be above Ground.

When you plant Willows, &c. for to make Pollards, they may be of a greater Size, as nine, ten, or twelve Foot long; but the preceeding is best for Hedges, Wood, &c. The best Season for planting them, is *October*, and in the planting observe, that you don't strip up the Bark at bottom, that the Bottom is not split or shaken by cutting, as also the Top, and that the Earth be well closed about it, and kept water'd the first Summer.

*Others no Roots require; the Lab'ror cuts
Young Slips, and in the Soil securely puts.*

DRYDEN.

And then again,

*Some Trees their Birth to bounteous Nature owe,
For some without the Pains of Planting grow:
With Oziers thus the Banks of Brooks abound,
Sprung from the watry Genius of the Ground.
From the same Principles green Willows come,
Herculean Poplar, and the tender Broom.*

DRYDEN.

Secondly, Of raising Trees from Seed.

Wherein observe that the Seed be not gather'd too soon before it has got its full Maturity, which will cause it to shrink; or too late, when it has sustain'd Damage by Rain, Frost, &c. Therefore when it appears dryish and pretty hard, it may be safely gather'd; and be sure to preserve it from wet, till 'tis sow'd, for that will cause it to mould and rot. Their be divers Kinds of Seeds, as will not come up after sowing till the second Spring, as *Tew-Berries, Holy-Berries, Asben-Keys, Hornbeam, White-Thorn,*

Thorn, &c. which should be kept the first Year in *Sand*, or Mould, to prevent their being destroyed by Vermine, &c. The best Land for raising all Trees from Seed, is a light fresh Sandy Loam, which should be trenched two Spit deep, levelled, raked, and divided into Beds of four Foot, and their Alleys between them about two Foot wide.

The best Season for sowing Seed of Trees, is as soon as they are ripe in *October*, in which observe to sow such Seed as are of a quick Growth, as *Asb*, *Lime*, *Maple*, &c. thinner, than those of a slow Growth, such as *Holly*, *Yew*, *Hornbeam*, *Beach*, &c.

After you have sown your Seed, tread all your Beds over, to fix the Seed into the Earth, and cover it over with good fine Mould about three or four Inches thick.

When Frosty Weather approaches, 'tis necessary to cover your Beds with Horse-Dung to keep out the Frost, which take away at the Change of Weather; and be sure that Traps are set to destroy Mice, &c.

N. B. That such large Seed as *Chesnuts*, *Acrons*, &c. are best to be planted with a *Dibber*, as Beans, or sow'd in *Drills*, like Pease: But 'tis best to plant Chesnuts at six or seven Inches Square; and the Acrons to be dropp'd in the Drills, at about five or six Inches Distance.

The better your Land is, and the cleaner 'tis kept, the more your Oaks and Chesnuts will thrive, and indeed all other Seeds in general.

When the Weather in the Spring and Summer prove very dry, you must not forget to water your Seed-Beds, and to take special Care that the Force of the Water, in watering, do not hurt or break the tender Shoots.

At *Michaelmas* sift amongst the young Plants, some rich Mould, such as old decayed Hot-Beds, &c. which the Winters Rains will wash in, and greatly strengthen their Fibrous Roots.

In *February* following, take out of your Seed-Beds all the the largest and strong Plants, leaving such as are weak till the next *Autumn* or *Spring*, and plant them out in Beds in Lines about four or five Inches apart, and the like Distance in the Rows, always observing to close the Earth very firm to their Roots, and that the Land be good mellow holding Land, free from Stones, Weeds, &c. N. B. I advise that they be planted in a

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New Principles of Gardening.

chopp'd Trench with the Spade, by the Side of the Line, and not with a Dipper, as is common; for if there is not very great Care taken with a Dipper, it will leave the lower Part of the Hole unclosed, which undoubtedly causes the Plant oftentimes to perish.

The best Exposure for Seed-Beds, and these transplanted, is the *East*; for in the Afternoon, they will be free from the scorching Sun, which oftentimes being too hot, prevents their Growth.

If you have the Conveniency of Water, 'tis good to keep them always moist; 'twill add greatly to their Growth. In *April*, *May*, and *August*, 'tis best to water them in a Morning, but in *June* and *July*, in an Evening.

Chestnuts and *Walnuts*, must stand three Years in the Seed-Bed, because they will not endure often transplanting.

*But some from Seeds, inclos'd in Earth arise;
For thus the Mastful Chestnut mates the Skies.
Hence rise the branching Beech, and Vocal Oak,
Where Jove of old oraculously spoke.*

Thirdly, Of raising Trees by Suckers.

To raise Trees from the Spawn or Exuberance of the Roots of others, such as *Elms*, *Abeal*, *Poplars*, &c. observe that Care be taken to prevent Cattle from cropping them, that they be taken up at *Michaelmas*, and planted out in Beds as directed for those raised from Seed, and let them remain therein two Years before they are planted out in the Nursery, always observing to keep them moist in the *Spring* and *Summer*, and clear from Weeds.

*Some from the Roots a rising Wood disclose,
Thus Elms, and the Savage Cherry grows:
Thus the green Bays, that binds the Poets's brows,
Shoots and is shelter'd by the Mother's Boughs.*

DRYDEN.

Fourthly

Fourthly, Of raising Trees by Layers.

This Method of raising Trees, is applicable to such that cannot be raised from Seed, as *Elms*, *Platanus*, &c. and even many as may be raised from Seed also, as the *Lime*, &c.

The first Work to be done herein is to make choice of a Piece of fresh Pasture, &c. as is very good and rich in Nature, and best when inclinable to, or is a sandy Loam.

Secondly, That the Ground be carefully trench'd two Spit and Crum in Depth, and in very small Spits, wherein plant Mother-Plants (by *Gardeners* call'd Stools) of *Elms*, *Limes*, *Platanus*, *Alder*, *Abeal*, *Poplar*, *Philberd*, &c. in such Quantity as will be capable to produce the Number of Trees desired.

If your Stools are made of very large well grown bodied Trees, each will produce Yearly about thirty Layers, or Plants, so that you may proportionate your Number of each sort, to the Nature of your Soil wherein you intend to plant, and the Magnitude of your Plantation intended.

The best Time to plant your Stools is *October*; and if your Land be very fresh and rich, they may be planted, at least eight Foot from each other, both in the Row, as well as one Row from the other, and it matters not what the Form of the Trees are, as the Stools are made off, whether they be straight or crooked, so as their Bodies are but large and well rooted.

In *February* following, or rather *January*, of the two Months, is the Time to lay down those Branches produced the last Year.

To every Stool you will have six or seven principal Branches, which you must plash at their Bottom, that they may comply with being laid down the easier; which done, twist all the Side-Shoots at such a convenient Place, as will admit of the twisted Part to be about eight Inches deep, which may be let in with a Trowel or Spade, and the extream Part of every Shoot, to be shorten'd to five or six Inches, or more, if need be, always observing to leave three Buds at least above Ground; to place your Layers upright; and that they are not too thick, whereby they will be all small, and hardly worth the Trouble of planting out.

In *October* following, if the Season permits, take off the Layers, and prune away all the Parts of those principal Branches before

fore plash'd, to give Room to those other Shoots as are to succeed them; which must be laid down in like manner the Spring following; and so the like every Year.

*Some bow their Vines, which buried in the Plain,
Their Tops in distant Arches rise again.*

DRYDEN.

S E C T. II.

Of the Manner of planting Nurseries and their Government.

IN order to have a prosperous Nursery, good Choice must be made of a proper Piece of fresh mellow Land, such as are deep, and with a good Bottom of strong Loam or Brick-Earth, rather than Sand or Gravel.

Your Ground being determin'd, Trench it as soon after *Michaelmas* as the Weather will permit, and divide it into convenient Quarters for the Reception of the several Trees as are to be transplanted therein.

The best Season for to remove your young Trees is *October* or *November*, which must be planted in Rows about four or five Foot apart, and their Distance in the Rows, two Foot or more, as the Nature of your Plants requires; for those of a quick Growth, intended for Hedges, extend their Side-Branches more than those of a slow Growth. In *May* following you must Visit your new planted Nursery, and displace all the Side-Buds, or Shoots of the leading Shoots, of such Trees as you intended for Standards, and not refer that Work as is commonly done till *Michaelmas*, when those Side-Branches have robb'd their Leader of as much or more Strength and Quantity as they themselves contain. The Objection made to this Practice

Practice is bare Theory only, *viz.* 'Tis supposed that when Trees are thus train'd up, they will grow taper and weak, which when admitted to distribute part of their Sap to their Horizontal or Side-Branches, causes the Tree to be much thicker in Proportion to its Height, and consequently much stronger. Now in order to prove this, I have made the Experiment on Limes and Dutch Elms, which are both of a quick Growth; and that I might not be deceived in the Goodness of the Land, I disbudded every other Tree of each Kind in several Rows, and at the *Michaelmas* following I pruned the others, whose Buds I had left on in the Spring, according to the common Way.

In the next Spring afterwards, as the Buds began to project out, I displaced them, leaving the other Trees with theirs on, as I did the Year before, and in the like Manner I proceeded till the *Michaelmas* following; at which Time I not only found those Trees, as I had so often disbudded, much larger and stronger Plants, but their Bodies were all smooth and clear from Knots and other Deformities, as the Knife is the Cause off.

The only Cause of Trees being weak and slender, and hardly capable of supporting themselves, is the too near planting them in the Nursery, not having such Quantity of Air as is necessary for their Support.

And that this may not be esteem'd bare Theory only, let any but compare the Growth of the outside Plants of any Nursery, as is of six or seven Years Growth, with those of the inward Parts, and the prodigious Difference of their Growth and Strength will be a sufficient Demonstration to prove the Truth of what I have asserted.

When your Trees have been thus managed for three Years, they must all be taken up, and replanted again in their same Places, carefully observing to prune away all Tap-Roots and others, as are bruised by the Spade. This Removal causes them to strike fresh, whereby they get fine fibrous Roots, which had they not been moved, could not have had. If Trees stand long in a Nursery, 'tis seldom that they have any more than very large Roots without Fibres, and therefore for want of them are subject to Mortality. And on the contrary, if Trees are removed in the Nursery every three, or four Years at longest, 'tis very seldom one in fifty dies.

When

When your Nursery has seen three Years passed over its Head, 'twill be high Time to lend a helping Hand, by giving it a good Dressing of Dung well consumed, but best when mix'd with fresh Earth, and turn'd four or five Times in the Summer before 'tis used; at which Time Care must be taken that 'tis not digg'd in too deep, but rather turn'd in, for 'tis better for the Trees to have the Salts of the Dung washed down to their Roots, than to have it laid close to them, which oftentimes canker and kill their tender Fibres.

If your Land was not fresh and hearty at your first planting, it will be best to give a Dunging in the Manner before delivered the second Year, instead of staying untill the third.

S E C T. III.

Of the Oak.

OF Oaks there are divers Kinds, which were they to be distinguished by the Difference of Leaves, Shoots, Acorns, &c. would admit of as great Varieties as Pears, or any other Fruit whatsoever.

The best Kinds are what Mr. *Bradley* calls the upright and spreading Oak, which generally grow to a very large Stature, and even so very large, (if his Report is true,) that the Timber alone of one Tree has been sold for upwards of fifty Pounds. *Vide his New Improvements*, Part I. Page 42.

This very large Sum to be paid for one single Tree, obliges me to make some near Calculation of the Quantity of Timber as must be contain'd in such a Tree, to amount to so great a Sum.

Admit that such a Tree was sold at four Pounds a Load, which is a very great Price, and seldom or ever given for Oak, it must contain twelve Load, twenty five Foot equal to fifteen Tun and a half, and upwards; and if the Tree was sold at fifty Shillings *per* Load, which is a customary and very great Price, its Quantity must be twenty Load, equal to twenty five Tun, which,
is

is very surprizing. The great Advantages arising from large Plantations of Oak, is so well known to this Nation, that I need not trouble my Reader with telling him of its great Use in Civil and Naval Architecture, or its Bark when peel'd in *April*, (for Tanners Use,) which is the proper Time to fell this Tree; or that its Acorns is excellent Food (as Mr. *Bradley* calls it) for Hogs, well known to every old Woman.

I say the Excellency of this noble Plant is so universally known, that to offer any Thing in order to encourage its greater Increase, would be needless, seeing that all our *English* Gentlemen of Fortune are not only good Judges of its great Use, &c. but at this Time are principally devoted to the Pleasures and Profit of Planting in general, wherein the Oak has a Place not inferior to any.

This noble Tree is raised from an Acorn, which should be sowed immediately after its falling from the Tree, and is always best when the Acorn is planted in the Place appointed for its future Growth; but when it cannot be so order'd, they must be sown in a Seed-Bed. In the removing of young Oaks from the Seed-Bed to the Nursery, or to the Spot where they are to remain, be careful to prune off their Tap-Root, and head them down to two Buds only, which also observe to do again the next Spring after, and then let one leading Shoot arise to form the Tree.

The Reason of heading down this Plant twice, is to enable its Root to throw forth a strong Shoot the third Year, which never fails of making a handsome Tree. And during the Time as the Oak is in the Nursery, Care must be taken every Spring and Summer to displace all the Side or Horizontal Buds, as I have once before directed, that the leading Shoot may receive all the full Nourishment as the Earth produces, and be free from Knots, Wounds, &c. which must happen, if those Buds are admitted to grow, at the Time of pruning.

Every third Year they must be transplanted as before directed in the Management of Trees planted in the Nursery; at which Time prune their Roots, but not their leading Shoots, always remembering that if you cut off, or only top an Oak, it ever afterwards is but a Pollard, and will never become a Timber-Tree.

To have good Oaks, or at least as good as can be, on wet Clays or dry Banks, &c. 'tis best to plant the Acorns therein,

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rather than to plant large Trees from the Nursery, whose former Life were not acquainted with the different Juices of such Soils, which those young Trees raised from the Acorns will digest, being by Birth naturalized thereunto; and the like of gravelly, flinty, and rocky Lands.

A good strong Land, like unto a light Brick-Earth, or a Loam inclinable to Clay, produces the best and toughest Oaks, and the soonest of all other Soils.

Gravel will produce Oaks of a noble Stature, very freight, and a fine Grain, but they soon decay.

If at any Time the Heads of your young Oaks should be too heavy for their Bodies, and thereby be inclinable to hang down and be crooked, cut away those Side-Shoots of their Heads as is the Cause; but 'tis best to lead them up, tied to straight Stakes plac'd on Purpose, which if practis'd, and the Side-Buds always rubbed off, the Timber produc'd by such Trees would be perfectly sound and clear from Knots, which renders it of much greater Value than that which is otherwise.

The proper Distance as Oaks should be planted from one another, in Woods, Groves, Parks, &c. should never be less than thirty five Feet.

*And thus the Means of raising Woods I sing;
Tho' from the parent Oak young Shoots may spring,
Or may transplanted flourish, yet I know
No better Means than if from Seed they grow.
'Tis true this Way a longer Time will need,
And Oaks but slowly are produc'd by Seed:
Yet they with far the happier Shades are blest,
For those that rise from Acorns, are the best,
With deep-fix'd Roots beneath the Earth descend,
So their large Boughs into the Air ascend.
Perhaps because, when we young Sets translate,
They loose their Virtue, and degenerate;
While Acorns better thrive, since from their Birth,
They have been more acquainted with the Earth.
Thus we to Woods by Acorns Being give:
But yet before the Ground your Seed receive,
To dig it first employ your Labourer,
Then level it; and, if young Shoots appear*

Above

*Above the Ground, sprung from the cloven Bud,
If th' Earth be planted in the Spring, 'tis good
Those Weeds by frequent Culture to remove,
Whose Roots would to the Blossoms hurtful prove;
Nor think it Labour lost to use the Plow,
By Dung and Tillage all Things fertile grow.*

*Whether you plant young Sets, or Acorns sow,
Still Order keep; for so they best will grow:
Order to ev'ry Tree like Vigour gives,
And Room for the aspiring Branches leaves.*

*When with the Leaf your Hopes begin to bud,
Banish all wanton Cattle from the Wood.*

*The browsing Goat the tender Blossom kills;
Let the swift Horse then neigh upon the Hills,
And the free Herds still in large Pasture tread,
But not upon the new sprung Branches feed;
For whose Defence Inclosures should be made
Of Twigs, or Water into Rills convey'd.*

*When ripening Time has made your Trees dilate,
And the strong Roots do deeply penetrate,
All the superfluous Branches must be fell'd,
Lest the oppressed Trunk should chance to yield
Under the Weight, and so its Spirits loose
In such Excrescences; but as for those
Which from the Stock you cut, they better thrive,
As if their Ruin caus'd them to revive;
And the slow Plant, which scarce advanc'd its Head,
Into the Air its heavy Boughs will spread.*

*When from the fasten'd Root it springs amain,
And can the Fury of the North sustain;
On the smooth Bark the Shepherds should indite
Their rural Strifes, and there their Verses write.*

*But let no impious Ax prophane the Woods,
Or violate their sacred Shades; the Gods
Themselves inhabit there. Some have beheld
Where Drops of Blood from wounded Oaks distill'd;
Have seen the trembling Boughs with Horror shake:
So great a Conscience did the Antients make
To cut down Oaks, that it was held a Crime
In that obscure and superstitious Time.*

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*For Dryopeius Heaven did provoke,
 By daring to destroy th' Æmonian Oak;
 And with it, but included Dryad too,
 Avenging Ceres here her Faith did shew:
 To the wrong'd Nymph, while Eresichthon bore
 Torments as great as was his Crime before.
 Therefore it well might be esteem'd no less
 Then Sacrilege, when ev'ry dark Recess,
 The awful Silence, and each gloomy Shade,
 Was sacred by the Zealous Vulgar made:
 Whene'er they cut down Groves, or spoil the Trees,
 With Gifts the antient Pales did appease.
 Due Honours once Dodona's Forest had,
 When Oracles were through the Oaks convey'd;
 When Woods instructed Prophets to foretel,
 And the Decrees of Fate in Trees did dwell.*

RAPIN.

S E C T. IV.

Of the Beech; its Culture, &c.

THE *Beech* is a Tree well worth our Esteem, and highly deserves the greatest of Encouragement for its Improvement, on Account of its great Uses, not only for the noble *Shade* and *Shelter* for *Cattle*, or *Mast* for *Deer*, but for its great Services: First, To *Carpenters*, *Joiners*, &c. whose *Plains* in general are made of this Wood, and many other Instruments also: Secondly, To *Mill-Wrights*, for making the *Rimbs* of *Wheels* for *Corn-Mills*, *Water-Engines*, &c. and for *Mud-Cills*, *Conduit-Foice*, &c. Thirdly, For *Keels* of *Ships*, and other Parts belonging thereunto: For this noble Timber is of such a Nature, that if it's kept always wet, or always dry, 'twill last for many Ages; but if it happens to be often wet and dry, 'tis presently

sently rotten and useless. Fourthly, For *Firing*: Of which the City of *London* destroys many thousand Loads every Year, being cleav'd into Billets for that purpose. And besides all this, 'tis of prodigious great Use in many other Services, as to *Turners*, *Upholsters*, &c. which to mention here is needless, since 'tis well known to all our Country Workmen in general.

This Tree is propagated from its Seed, call'd *Mast*, which must be gather'd about the middle of *September*, when it will begin to fall; and when gather'd, and well dried, it must afterwards be preserved in Sand till *January*, then sowed in the Seed-Bed, and order'd in every Respect as the *Oak*, with whom it greatly delights to grow.

'Tis observed that the Land it delights mostly in, is *Mountains*, *chalky Hills*, &c. as before describ'd.

The Distance that these Trees are to be planted from each other, should be never less than forty Foot: It makes a stately Tree, and well deserves to be planted in our *Avenues*, instead of those useless Trees, the *Lime* and *Dutch Elm*.

These Trees when planted young, at about two Feet apart, and suffer'd to throw out their Side-Shoots, makes very beautiful Hedges in *Gardens*, *Wildernesses*, &c.

When this Tree is intended to be propagated on poor Lands, 'tis best to sow the *Mast*, rather than plant the Tree from the Nursery, as is before said of the *Oak*.

*When e'er you plant, through Oaks your Beech refuse;
The hard Male Oak, and lofty Cerrus chuse:
While Esculus of the Mast bearing kind,
Chief in Ilicean Groves we always find:
For it affords a far extending Shade;
Of one of these sometimes a Wood is made.
They stand unremoved, though Winters do assail,
Nor more can Winds, or Rain, or Storms prevail.*

*To their own Race they ever are inclin'd,
And Love with their Associates to be join'd.
When Fleets are rigg'd, and we to fight prepare,
They yield us Plank, and furnish Arms for War,
Fuel to Fire, to Ploughmen Plows they give,
To other Uses we may them derive.*

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But nothing must the sacred Tree prophane;
 Some Boughs for Garlands from it may be ta'n:
 For those whose Arms their Country Men preserve,
 Such are the Honours which the Oaks deserve.
 We know not certainly whence first of all,
 This Plant did borrow its Original;
 Weather on Ladon, or on Mænalus,
 It grew, if fat Chaonia did produce;
 It first, but better from our Mother-Earth,
 Then Modern Rumours, we may learn their Birth.
 When Jupiter the World's Foundation laid,
 Great Earth-born Giants Heaven did invade;
 And Jove himself, (when these he did subdue,)
 His Lightning on the factious Brethren threw.
 Tellus her Sons Misfortunes does deplore,
 And while she cherishes the yet warm Gore,
 Of Rhacus, from his Monstrous Body grows,
 A vaster Trunk, and from his Breast arose
 A hardned Oak; his Shoulders are the same,
 And Oak his high exalted Head became:
 His hundred Arms which lately through the Air,
 Were spread, now to as many Boughs repair.
 A seven-fold Bark his now stiff Trunk does bind;
 And where the Giant stood a Tree we find:
 The Earth to Jove strait consecrates this Tree,
 Appeasing so his injur'd Deity;
 Then 'twas that Man did the first Acorn eat:
 Although the Honour of this Plant be great,
 Both for its Shade, and that it sacred is,
 Yet when its Branches shoot into the Skies.
 Let them take heed, while with his brandish'd Flame,
 The Thund'rer rages, shaking Nature's Frame.
 Lest they be blasted by his pow'rful Hand,
 While Tamarisks secure, and Mirtles stand.

RAPIN.

SECT.

S E C T. V.

Of the Ash; its Culture, &c.

THE *Ash* is a very useful Tree, on many Occasions; as for Watermens Boats-Staves, Oars, &c. Coach and Cart-Wheels, Plows, and many other Works in Trade, and therefore ought to be as much increased, as any other Tree whatsoever,

This Tree is a very free grower, and is increased from its Keys, which are thorough ripe about the End of *October*, or the Beginning of *November*, at which Time they are to be gather'd. In the gathering of *Ashen-Keys* for an Increase, you must observe, that those Trees from which you gather them, be straight thriving Trees, and not of a small Stature, or any ways decaying. After your Keys are gather'd, let them be dry'd, and put into Sand; wherein let them remain till *January*, at which Time they should be sown in the Seed-Bed, as before directed, &c.

The first Year after sowing, they lie in the Earth, and the next *Spring* come up. Therefore for the first Year, the Ground wherein they are sown, may be sow'd with a Crop of *Barley*, *Oats*, or any other Crops of the like Nature.

But the most advantageous Way is to keep them the first Summer after gathering in Sand, and to sow them in the Spring following, *viz.* about the middle of *January*.

During that Time as you keep them in Sand, observe that the Sand be kept indifferently moist, and that the Air may have free Access to them, and in the laying them therein, be careful that they don't lie in Lumps, or too thick, but in such a Manner as for the Sand to encompass every Key.

In the Spring, when you sow them, first prepare the Bed wherein they are to be sown; and as soon as that is done, sow them of a reasonable Thickness, and immediately cover them with
fine

fine Earth, about two Inches in Thickness; for if they lie long in the Air before they are cover'd, 'twill be a Prejudice to them, as also will the Weeds, if they are suffer'd to grow amongst them. The First Year they shoot but little, to what they will the second after which they must be transplanted into the Nursery, as before directed, &c.

When you transplant an Ash-Tree, young or old, observe to prune its Side-Branches; but never meddle or cut off the leading Shoot.

Ashes, in general, are of such a Nature, as to extend their Roots to a very great Distance from the Bodies to which they belong, and entirely deprive all other Trees of their proper Nourishment; and, indeed, even Corn, and all other Vegetables of the like Nature, will languish and pine away to nothing.

And seeing that this Tree is pernicious to all others, therefore I advise that Plantations of Ash be by themselves, that nothing may be wrong'd by their ravenous Nature, and their Distance from each other be about twenty five Foot.

*Thus in some even Fields the Ash delights,
Where a good Soil the gen'rous Plant invites:
For from an Ash which Pelion once did bear,
Divine Achilles took that happy Spear,
Which Hector kill'd, and in their Champion Fate
Involv'd the Ruin of the Trojan State.
The Gods were kind, to let brave Hector die
By Arms as noble as his Enemy.
Ash, like the stubborn Hero in his End,
Always resolves to break rather than bend.*

RAPIN

SECT.

S E C T. VI.

Of the Elm; its Culture, &c.

OF *Elms* there are three Kinds, *viz.* the *English*, the *Dutch*, and the *Witch Elm*, of which the *English* is the most profitable, as well as the most beautiful.

They all delight in one and the same Soil; which should be a good Loam, to have them in the greatest Perfection; not but they will do on other Lands, as before deliver'd. These Trees are increased by Layers or Suckers, which last should remain in the Bed two Years before they are transplanted into the Nursery.

Of all the several Kinds of Forest or Ever-green Trees, there's none makes such Beautiful Hedges in Gardens, Groves, Wildernesses, &c. as the *English Elm*; and although 'tis a Tree of a slow Growth, yet if 'tis grafted upon the *Dutch Elm*, 'twill advance to a large Stature in a small Time.

The great Use of the *Elm* to *Wheel-Wrights*, *Mill-Wrights*, *Pipe-Borers*, *Pump-Makers*, &c. is so well known that it needs no manner of Discription, to exemplify the Excellency thereof.

And in the *Park* 'tis delightful, being planted in open Avenues, where its noble Shade and Verdure demonstrates its Grandure and Glory: Witness that matchless Spot of Ground, *Greenwich Park*, whose delightful Walks are chiefly adorn'd with this beautiful and most advantageous Plant.

And besides, 'tis one of the most Hospitable Plants growing for 'till admit of such under Shrubs, as *Asb*; and divers other Trees will not.

*With Rows of Elm, your Garden or your Field
May be adorn'd, and the Sun's Heat repell'd.
They best the Borders of your Walk compose;
Their comely Green still ornamental shows.*

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*On a large Flat, continued Ranks may rise,
Whose Length will tire our Feet, and bound our Eyes;
Where endless Walks the pleased Spectator views,
And ev'ry Turn the verdant Scene renews.*

*The sage Corycian thus his native Field;
Near swift Oobalian Galefus till'd;
A thousand ways of planting Elms he found;
With them sometimes he would inclose his Ground:
Oft in directer Lines to plant he chose;
From one vast Tree a num'rous Offspring rose.
Each younger Plant with its old Parent vies,
And from its Trunk like Branches still arise.
They hurt each other, if too near they grow;
Therefore to all a proper Space allow.*

*The Thracian Bard a pleasing Elm-Tree chose,
Nor thought it was below him to repose;
Beneath its Shade, when he from Hell return'd,
And for twice lost Enrydice so mourn'd.
Hard by cool Hebrus Rhodop does aspire;
The Artist, here, no sooner touch'd his Lyre,
But from the Shade the spreading Boughs drew near,
And the thick Tree a sudden Wood appear:
Holm, Withy, Cypress, Plane-Trees thither prest;
The prouder Elm advanc'd before the rest:
And shewing him his Wife, the Vine, advis'd,
That nuptial Rites were not to be dispis'd.
But he that Counsel scorn'd, and by his hate,
Of Wedlock, and the Sex, incurr'd his Fate.*

N. B. That the Distance to plant Elms at, is thirty or thirty-five Foot from each other, or rather so much square.

*The Difference which in planting each is found,
Now learn; since th' Elm with happy Verdure's crown'd.
Since its thick Branches do themselves extend,
And a fair Bark does the tall Trunk commend.*

RAPIN.

SECT.

S E C T. VII.

Of the Lime-Tree, by some call'd the Linden-Tree; its Culture, &c.

THE *Lime* is a beautiful Tree in the Spring, but 'tis of a very small Duration, if the Land wherein it grows be hot, as a *Sand* or *Gravel*, &c. 'Tis a Tree of a quick Growth, raised from *Seed* or *Layers*; it makes very fine *Espaliers*, or Hedges, and indeed is conformidable to any shape whatsoever: Its Leaf is of a fine light Green, makes a pleasant Shade, and is one of the very first as welcomes in the Spring with its beautiful Leaves: 'Tis a very useful Tree for an immediate Shade, and for *Avenues*, *Wildernesses*, &c. in such Places where future Profit by Timber is not regarded. But for my part, I should rather make Use of them, to fill up the Quarters of a Wilderness, than to plant them in *Avenues*, where no Tree is so Beautiful and Profitable as the English Elm.

But then again, altho' the Elm is an advantageous Tree, when full grown, if fell'd and sold, and will fetch a great Price; yet 'tis supposed that a Lover of Gardening values those beautiful Trees, when they are in their Prime, at a much higher Rate, than to destroy them for the sake of their Timber, and thereby ruin grand Avenues, Walks, &c. to the great Prejudice of a noble Seat. Suppose that *Greenwich Park* had been planted with the View of cutting down the Elms when grown to their full Maturity, what would have been the Consequence? Why, the Destruction of the most beautiful Spot of Ground in the Kingdom, and the Ruin of the Town also. And since every Gentleman, is willing to possess the utmost Pleasure of such Trees Durations, which when they decline are no more than Fire-wood, why may not the Lime-tree be admitted in loamy holding Lands, interspersed with the Elm, &c. seeing that when either of their Beauty is over, and decaying, the

Goodness of their dying Bodies are of equal Value for the Fire. 'Tis certain that the Elm makes an excellent Shade, and a beautiful Tree, but not handsomer than that of the Lime, whose curious natural Shape exceeds all that Art can produce: Witness those noble Trees before *Ham-House*, opposite to the Seat of the *Honourable James Johnston's at Twickenham*, Middlesex; and those in *Busby* and *Hampton-Court Parks*, whose beautiful Forms is not Inferior to any growing.

This Tree is of a very long Duration, and often of a large Magnitude. Mr. *Evelin*, in his Discourse on *Forest-Trees*, Chap. xxix. Page 82. makes mention of a *Lime-Tree*, growing at *Depenham* in *Norfolk*, ten Miles from *Norwich*, whose Circumference at bottom, was sixteen Yards and half, and its perpendicular Altitude about thirty Yards, which to me appears to be more stranger than Mr. *Bradley's* Report of the Oak. However, though every Lime does not arrive to that prodigious Magnitude, yet they never fail of a proportionate Size.

The Nature of this Tree is to grow taper and streight; to constantly keep its pyramental Form; to have Plenty of Leaves, whereby it makes a good Shade; to preserve its self by its tough Bark from the violent Winds; to produce good Quantity of Roots, from which the Head is plentifully supplied; to send forth fragrant Flowers or Blossoms in the Spring; produces Branches, whose Wood is of a Beautiful red glossy Colour; soon heals over its Wounds by a Knife, &c. and therefore is preserved from the wet, so that 'tis very seldom they grow hollow; its Wood is of great Service in Carving, and is a very sweet kind of Fuel.

In the pruning of their Roots, observe that you cut away all their small woolly Fibrous Roots; for they are presently dead after taking up; and besides they hinder the Earth from getting to the principal Roots: But for their Heads, 'tis best to leave them on, pruning off all Side or Horizontal Branches close to the Body of the Tree, without leaving on Side-Snags as is common.

The Seed of this beautiful Tree is ripe in *October*; at which time it must be gather'd, and in a fine dry Day if possible; after which lay it to dry in an open Room; for the Space of six seven Days, and then it being very dry, put it into Sand as was directed for the *Aspen-Keys*, and in the middle of *February* following, must be sown in the Seed-Bed, which would be best if
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under an *East* or *North* Wall, &c. After they have continued two Summers in the Seed-Bed, transplant them in the Autumn following to the Nursery, as before directed.

When Limes are planted to make an Espalier or Hedge, they are planted at three Foot Distance in the Lines; in which observe, that whenever you plant Hedges of *Lime*, *Elm*, &c. to plant one low or short Plant between every two of the highest, and thereby your Hedge will be full at the Bottom, which otherwise very rarely happens. Lime-Trees planted for shady Walks, may be at ten, twelve, or sixteen Foot a-part; but for those in large Avenues, not nearer than thirty five or forty Foot.

N. B. That Hedges of Limes, or of Elms, should at first planting be cut down within four Foot of the Ground, and all their Side or Horizontal Branches shorten'd, 'twill add very much to their Improvement.

The best Lime-Trees for Standards, are those of six or seven Years Growth.

*High shooting Linden next exacts your Care;
With grateful Shades to those who take the Air.
When these you plant, you still should bear in Mind
Philemon and chaste Baucis: These were join'd
In a poor Cottage, by their pious Love,
Whose sacred Ties did no less lasting prove,
Then Life itself. They Jove once entertain'd,
And by their Kindness on him so much gain'd;
That, being worn by Times devouring Rage,
He chang'd to Trees their weak and useless Age.
Tho' now transform'd, they Male and Female are;
Nor did their Change ought of their Sex impair.
Their Timber chiefly is for Turners good;
They soon shoot up, and rise into a Wood.*

N. B. That the *Platanus*-Tree is propagated as the Lime-Tree, by Layers: Its Leaves are very large and beautiful. 'Tis a Tree of a quick Growth, delights in good Land; but 'tis late in the Spring before its Leaves comes out, and in some hot Summers drop very early.

S E C T. VIII.

Of the Maple ; its Culture, &c.

THE *Maple-Tree* is very proper to be cultivated in our *Gardens*, in regard to its being a very free Grower, and thickens the *Quarters of Wildernesses, Coppices, Woods, &c.* when train'd up as a *Shrub* or *Bush*, and not as a Standard Tree. This Plant is very subject to receive a Sort of *Honey-Dew* on its Leaves, which being wash'd off by Rains, is prejudicial to all such Plants as it falls on; therefore for that Reason 'tis best to cut them down near to the Ground, that they may break into divers Branches; and make a Thicket from the Bottom.

Or if they are train'd up in Hedges, they make a very handsome Appearance, and will thrive under the Drip of other Trees although others cannot endure long under the Drip of them.

The Soil this Tree delights in, is a dry Ground, or Bank; 'tis increas'd by Seed, Suckers, or Layers; and its Seed lies a Year in the Ground before it comes up; therefore 'tis best to keep it the first Year in Sand, as the *Ash, &c.*

*Respect is likewise to the Maple due,
Whose Leaves, both in their Figure, and their Hue,
Are like the Linden; but it rudely grows,
And horrid Wrinkles all its Trunk inclose.*

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S E C T. IX.

Of the Sycamore; its Culture, &c.

THIS Tree is most proper for a Wood or Coppice, rather than a Wilderness or Garden, on Account that its Leaves are subject to receive and retain such *Honey-Dews*, that it draws to them several Kinds of *Flies*, which are very troublesome to People when walking near them.

Of *Sycamore-Trees* there is two Sorts, the one with plain green Leaves, and the other *varigated*. 'Tis a Tree as makes a fine Shade, a very quick Grower, of a beautiful Colour and Leaf.

'Tis a Tree as grows to a tolerable good Stature, its Timber is of good Services in divers Affairs, and is very easy propagated from Seed or Layers. The Seed should be sow'd as soon as ripe, which is known by the Time of its falling, and will come up the Spring following.

It thrives best in a light and dry, rather than a wet and stiff Land.

S E C T. X.

Of the Hornbeam; its Culture, &c.

THE *Hornbeam* is a Plant that will make a Standard, but not over and above large; yet for Variety's sake, 'tis proper to have some of them in our Wilderness. 'Tis best for Hedges, which of those as shed their Leaves yearly,

ly, none is superior to it. It is raised from Seed, which lies one Year in the Ground before it comes up, or otherwise, as long in Sand as the Ash, and should be sown in the same Season and Manner. It makes a very beautiful Thicket for the Entertainment of Birds in the Quarters of a Wilderness, &c. and very often holds on its Leaves all the Winter, till they are displaced by the young ones in the Spring.

*If any Plain be near your Garden found,
With Cyprus, or with Hornbeam, hedge it round;
Which in a thousand Mazes will conspire,
And to Recesses unperceiv'd retire:
Its Branches, like a Wall, its Paths divide,
Affording a fresh Scene on every Side.
'Tis true, that it was honour'd heretofore;
But Order quickly made it valued more,
By its shorn Leaves, and those Delights which rose
From the distinguish'd Forms in which it grows.
To some cool Arbour by the Way's Deceit,
Allur'd, we haste, or some oblique Retreat,
Where underneath its Umbrage we may meet
With sure Defence against the raging Heat.*

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S E C T. XI.

Of the Hazel, its Culture, &c.

THE Hazel is a very fine Plant for the thickening of a Wilderness, and its Fruit is no less diverting to the young Men and Maids in the Nutting-Season. 'Tis a very profitable Coppice-Wood, and is propagated from its Nuts, or by Suckers: When by Nuts, they should be sown soon after they are gathered, which should not be, until the Kernels have received

ceived their full Growth; and the Soil as they will thrive in, is poor, sandy, dry, or cold Lands, &c. but when better, 'tis better still.

When they have seen three Years over their Heads, in *January* cut them down, leaving about six or eight Inches above Ground; and the Spring following they will break out into divers Shoots, which in five Years, or thereabouts, will be fit to make Hurdles, &c. or if let growing until eight or nine Years, will make fine *Hop-Poles, Hoops, Fire-Wood, &c.*

I cannot but recommend those propagated from Seed, before those from Suckers, being sown as aforesaid, kept clean from Weeds, and kept at the Distance from one another of about three or four Foot.

But if you plant Suckers, the proper Time for that Work is *October*, at which Time you must prune them down as before directed, *viz.* within six or eight Inches of the Ground.

N. B. That as this Plant may be easily propagated by *Layers*, laid down from the Mother-Plant, or Stool, as *Elms, Limes, &c.* 'tis more safer to plant the Layers as are well rooted, which one Year will perform, than to run the Hazard of planting Suckers, which often fail.

Hasle dispers'd in any Place will live:

In stony Grounds Wild Ash, and Cornel thrive;

In more abrupt Recesses these we find,

Spontaneously expos'd to Rain and Wind.

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S E C T. XII.

Of the Birch; its Culture, &c.

IN Consideration that the Services of the *Birch-Tree* is of the smallest Number of any *Forest-Tree*, therefore 'tis contented to live in the worst of Soils; and altho' this Tree is but of small Use, besides its terrible Aspect to Children, &c. yet 'tis a very beautiful Plant, and highly deserves a Place in the Quarters of our Wilderness. And besides, its Faculty of attracting and preparing from the Earth, that pleasant and healthy medicinal Liquor, is a sufficient Reason, that it highly deserves a due Encouragement as well as other Forest-Trees.

And although the making of Birch-Wine is known to some People, yet I cannot but think, that if I insert it in this Place, it may oblige others, without any Displeasure to any.

The Method that I shall lay down, is the same as Mr. *Evelyn* makes Mention of in his learned Discourse on Forrest-Trees, Page 77.

In the Beginning of *March* cut an oblique Hole, or rather a Slit, under the Branch of a well-spreading Birch-Tree, which keep open by a small Wedge or Stone put therein. To this Hole, or Slit, fix a Bottle to receive that clear Water or Sap as will extill it self out of the Aperture into the Bottle, which must be taken away when full, and others fix'd in its Place, &c.

Having in this Manner obtain'd a sufficient Quantity of the Sap or Birch-Water, put to every Gallon thereof, a Quart of Honey well stirr'd together, and boil it almost an Hour, with a few Cloves and a little Lemmon Peel, being kept well scummed.

When it is sufficiently boil'd, as before, and become cold, put to it two or three Spoonfuls of good Ale, which will cause

it to work like new Ale, and when the Yeast begins to settle, bottle it up as you do other Liquors, as Wine, &c. and in a competent Time 'twill become a most brisk and spiritous Wine, and a very great Opener. *N. B.* That if you don't like Honey, (it being disagreeable to some) instead thereof, you may allow one Pound of the best double-refin'd Sugar, or it may be dulcified with the best of *Malaga* Raisins; which last will make it a wonderful fine Wine.

And altho' this Wine is very gentle and harmless in its Operation within the Body, yet 'tis so strong in the common Stone-Bottles, that they cannot preserve its Spirits. This Wine is very good for the Phthick, dissolves the Stone in the Bladder, and exceedingly sharpens the Appetite, being drank *ante Pastum*.

S E C T. XIII.

Of the Quickbeam.

THE *Quickbeam*, called by some *Wickey*, or *Wicking*, and by others Wild or *Spanish Ash*, is a most beautiful Tree for a Wilderness, not only for its pleasant Leaves and Straitness of Shoots, but for its delightful Blossoms in the Spring, and curious Clusters of red Berries in the Autumn.

'Tis raised from its Seed, and requires the same Culture as the Ash.

S E C T. XIV.

*Of the Alder, Poplar, Withy, Willow, Sal-
low, and Ozier; their Culture, &c.*

(1.) **T**HE *Alder*, an amphibious Plant, who greatly delights in wet boggy Lands, River-Sides, &c. is increas'd by large Cuttings, as before directed. The Shoots of this Plant should be cut down every third or fourth Year, at longest; for if they are suffer'd to grow a longer Time, the Wounds will be so very large, that with the Wet, &c. they will soon rot, and become hollow, and thereby instantly decay.

The best Time to cut or head down this and all other Aquatick Trees, is in *February*; for by the immediate Flowing of the Sap, their Wounds are soon heal'd.

(2.) Of *Poplars* there are four Kinds, viz. First, the large White Poplar, commonly called *Abeal*, with a large, pale, green Leaf, and white underneath. Secondly, the small White *Abeal*, whose Leaves are somewhat smaller, but of the same Form and Colour as the preceding. Thirdly, that Kind of *Poplar* as is called the *Aspen* or *Asp-Tree*. Fourthly, the other Kind is the *Water-Poplar*; its Leaf is of a pale Green, as the large White, but in Form like the *Aspen*. The young Shoots is of a yellowish Green, and delights to grow by River's Sides. The best Use these Trees can be applied to, is for the breaking of Westerly and Northerly Winds, and to be planted in dry or wet Lands, where no other Tree will thrive; for the Advantage as will arise from its Timber, &c. for Fuel, Posts, Rails, Stiles, &c. is many Times better than that from the Willow.

This

This last is increased by large Cuttings, in the Manner as directed for Willows, &c. in the first Section hereof; which when planted for Stumps, to cut or lop, and those for Pollards, may be planted five, six, or eight Foot high, of any Thickness not exceeding three Inches (or little more) Diameter.

In the Planting these large Cuttings, be careful that neither of the Ends be split in cutting; and that the Bark is not displaced in any Part. Plant them about eighteen or twenty Inches deep; and the best Season is *October*, if your Land is not very wet, or *February* if otherwise.

These Sorts of Trees, well managed, may be lopp'd every five Years, and will turn to a very good Account.

*Into your Forest, shady Poplars bring,
Which from their Seed with equal Vigour spring.*

RAPIN.

(3.) The *Withy*: It delights in Land that is not over moist or dry; as Banks of Rivers, Hills, &c. wherein small Springs spew out, or Banks in Morish Lands, and may be lopp'd every fifth Year.

(4.) The *Willow* delights in the same Soil; and both are increased by large Cuttings, as before directed.

I shall not trouble my Reader with the several sorts of Willows, seeing that they are all propagated by the same Method; and therefore shall only add, that no Gentleman should be without the smelling Willow, which is a Plant of a quick Growth, bears a fine shining broad green Leaf, with beautiful Flowers, delightful to Bees; and the fine French yellow Willow, which is of as tough a Nature as Whitleather, and of great Use in nailing Fruit-Trees, and other such like Works in a Garden.

(5.) Of *Oziers* there are several Sorts, and all raised as the preceeding. They love a more Moist or Moorish Land than the Willow or Sallow.

The proper Distance to plant *Oziers* is about two Foot and half, or three Foot, mixing Stumps and Pollards together; and the best Season to plant them, is in *February*. 'Tis a Plant of great Service for Baskets, &c. and therefore highly deserves our Notice.

New Principles of Gardening.

(6.) The *Sallow* is a Plant as delights on moist Banks: 'Tis increased by *Seed*, *Layers*, or *Cuttings*. There are three Kinds common; of which the Round-leaf *Sallow* delights best in moist Banks, as aforesaid, and the others in wetter Lands, as *Moors*, &c.

Alder, and *Withy*, chearful *Streams* frequent,
 And are the *Rivers* only Ornament.
 If antient *Fables* are to be believ'd,
 These were *Associates* heretofore, and liv'd
 On fishy *Rivers* in a little *Boat*,
 And with their *Nets* their painful *Living* got.
 The *Festival* approach'd; with one *Consent*,
 All on the *Rites* of *Pales* are Intent:
 While these unmindful of the *Holy Day*,
 Their *Nets* to dry upon the *Shore* display.
 But *Vengeance* soon th' *Offenders* overtook;
 Persisting still to labour in the *Brook*,
 The angry *Goddeſs* fix'd them to the *Shore*,
 And for their *Fault* doom'd them to work no more.
 Thus to *Eternal Idleness* condemn'd,
 They felt the *Weight* of *Heaven*, when condemn'd.
 The *Moisture* of those *Streams* by which they stand,
 Endues them both with *Power* to expand
 Their *Leaves* abroad; *Leaves*, which from guilt look pale,
 In which the never ceasing *Frogs* bewail.

RAPIN.

N. B. That the proper Season to fell the *Oak* is in *April*; the *Elm*, *Chesnut*, and *Walnut*, from *October* to *February*; and the *Beech*, *Ash*, *Willow*, *Abeal*, &c. may be lopp'd in any part of the same Months.

S E C T.

S E C T. XV.

Of the Black Cherry-Tree.

ALTHOUGH the *Black Cherry-Tree* is not directly a Forest-Tree, yet in Regard to its being a beautiful Tree in a Wilderness, I could not pass it by without taking some Notice thereof.

The Soil as is most natural to it, is a dry Soil, with a gravelly Bottom, not but they will do very well in most Kinds of Loam.

They are increased from the Stones of the Fruit, which when ripe should be gather'd, and the Pulp got off, either by rowling them in dry Sand under a Plank, &c. which must afterwards be put into Sand, not too thick so as to heat, and in the *February* after, may be sown in a Seed-Bed, as already described.

This Tree makes a glorious Appearance in the Spring, when in Bloom, and is no less pleasant when its Fruit is ripe: 'Tis a Tree as draws great Quantity of Birds to it, who are the most delightful, and beautiful Embellishments, as a wild and rural Garden can be adorn'd with ; and besides, its Bloom gives great Relief to the most industrious Bee.

*If the aspiring Plant large Branches bear,
And Cherries with extended Arms appear ;
There near his Flocks upon the cooler Ground
The Swain may lie, and with his Pipe resound
His Love ; but let no Vice those Shades disgrace,
We ought to bear a Reverence to the Place :
The Boughs, th'unbroken Silence of a Wood,
The Leaves themselves demonstrate that some God
Inhabits there, whose Flame might be so just,
To burn those Groves which had been fir'd by Lust.
But through the Woods while thus the Rustick sport,
Whole Flights of Birds will thither too resort ;*

Whose

New Principles of Gardening.

*Whose different Notes and Murmurs fill the Air:
 Thither sad Philomela will repair;
 Once to her Sister she complain'd, but now
 She warbles forth her Grief on ev'ry Bough,
 Fills all with Tereus Crimes, her own hard Fate,
 And makes the melting Rocks, compassionate.
 Disturb not Birds which on your Trees abide,
 By them the Will of Heav'n is signified:
 How oft from hollow Oaks the boading Crow,
 The Winds and future Tempests do foreshow.
 Of these the wary Ploughmen should make use;
 Hence Observations of his own deduce,
 And so the Changes of the Weather tell,
 But from your Groves all hurtful Birds expel.*

The riper Cherries are, when gather'd, the sounder are the Kernels; and if they are sown as before directed, they will come up in the following Spring. But if they lie long out of Sand, &c. to be very dry, after the Pulp is taken off, they will not come up till the second Spring, and sometimes never.

The Fruit is ripe in *July*, and in many Places they are very large, and of an excellent fine Taste.

The Tree is naturally of a very large Growth: And Mr. Cook, in his *Treatise of Forest Trees*, tells us, that at *Cashibury*, he measured the Height of one Black-Cherry-Tree, and found it to be eighty five Foot, five Inches.

S E C T.

S E C T. XVI.

General Directions for planting Forest Trees, &c.

WHEN your Trees in the Nursery are arrived to a proper Bigness, fit to be transplanted in the *Park, Forest, Wilderness, &c.* they are to be transplanted in the following Manner, *viz.*

If your Ground is not in general to be trench'd, which should always to be done for the Planting of *Wildernesses, Coppice, &c.* then first set out the Distance as each Tree is to stand, as is before directed, and dig for each Tree a Circular Hole of ten Foot Diameter, and about two Foot deep at most, observing to lay the first Spit of Earth by it self, which afterwards must be cast into the Bottom of the Hole; and if 'tis a Meadow, &c. as you plant in, the Turf must be well chopp'd to Pieces with the Spade before the Tree is planted thereon.

Your Hole being thus prepared, the next Work to be done is the pruning of the Tree, wherein observe that you don't head any Tree, and especially the *Oak, Walnut, Chesnut, Ash, Elm, Beech, &c.* and that you prune away all matty Fibrous Roots, and such as are dead by the Winds, as will hinder the Earth's getting to the larger: Also mind that your Knife is very Sharp, that you cut clean, that you prune the End of every Root, and cut away all that are bruised.

Your Tree being thus pruned, place it in the Hole as 'tis to stand, and fill in the Earth equally about its Roots, and be careful to see that every Root is well inclosed therewith, not to be hollow, &c. which causes the Tree to perish; the Earth being firmly placed to the respective Roots, the Tree must be

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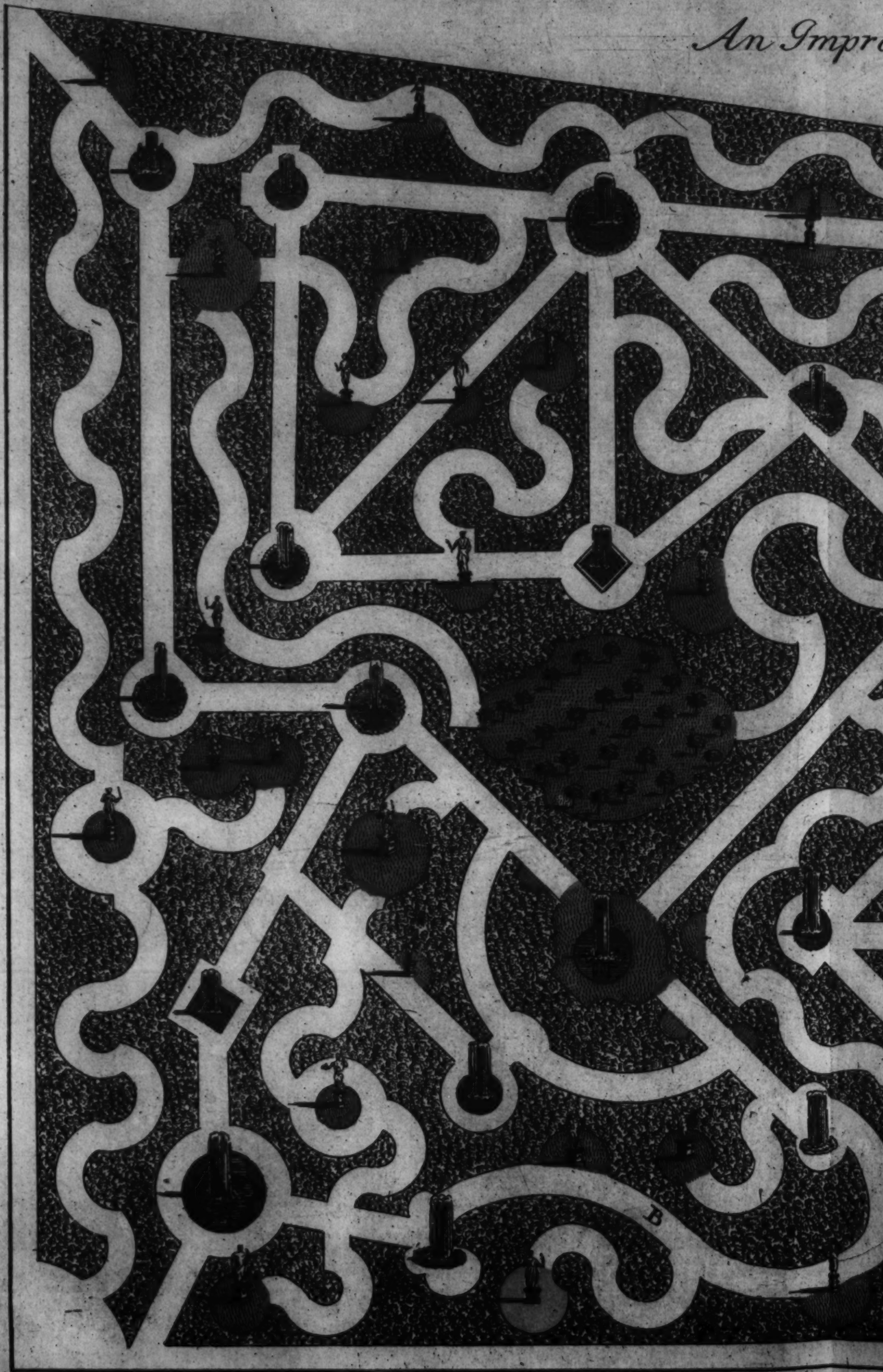
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secured by Stakes; that the Winds do not displace it, and if you pile up a great deal of Earth over their Roots, 'twill be a Means of keeping the Tree fast, and preserve them from the Scorching Heat of the Sun.

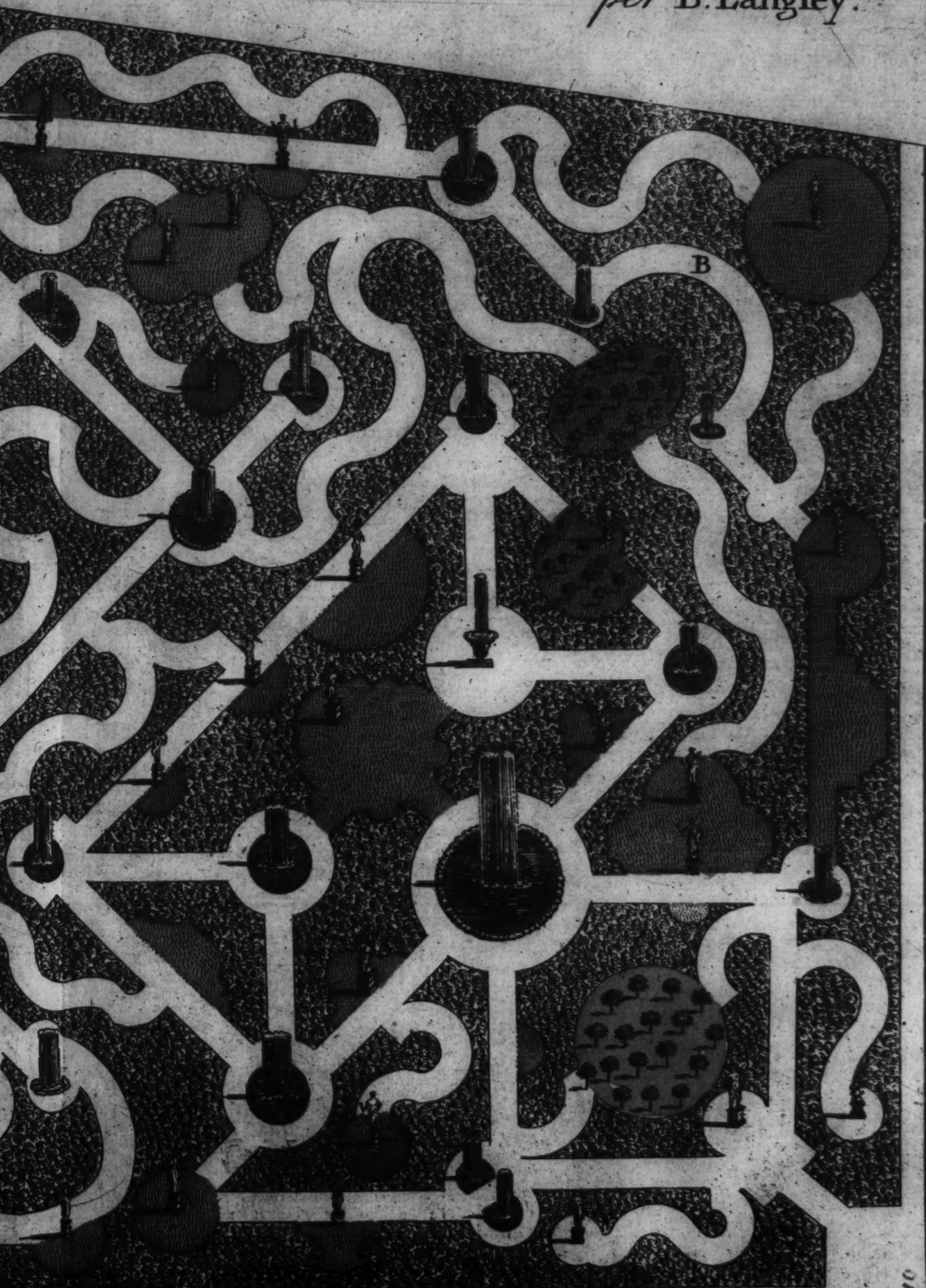
But, as I said before, take care that you don't plant too deep, and especially in wet and cold Lands.



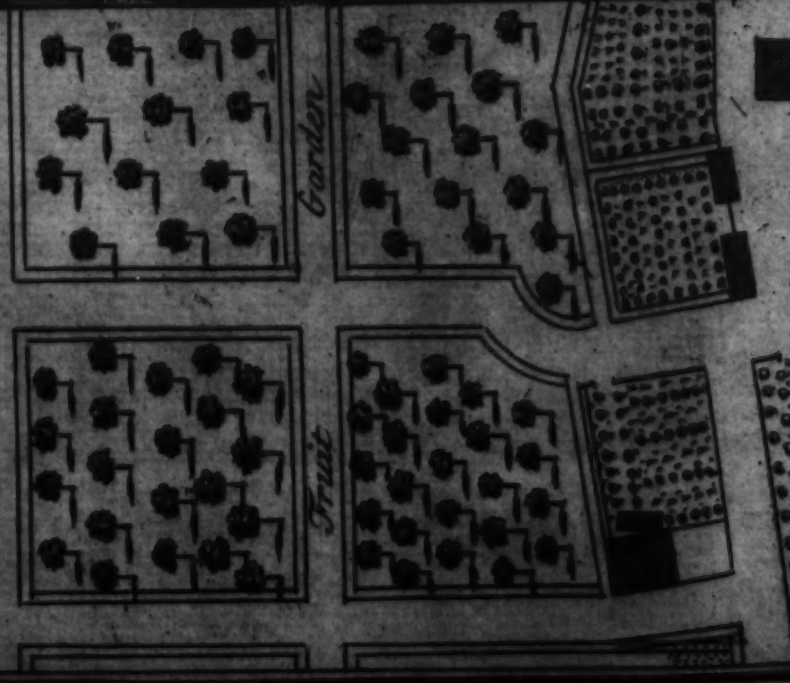
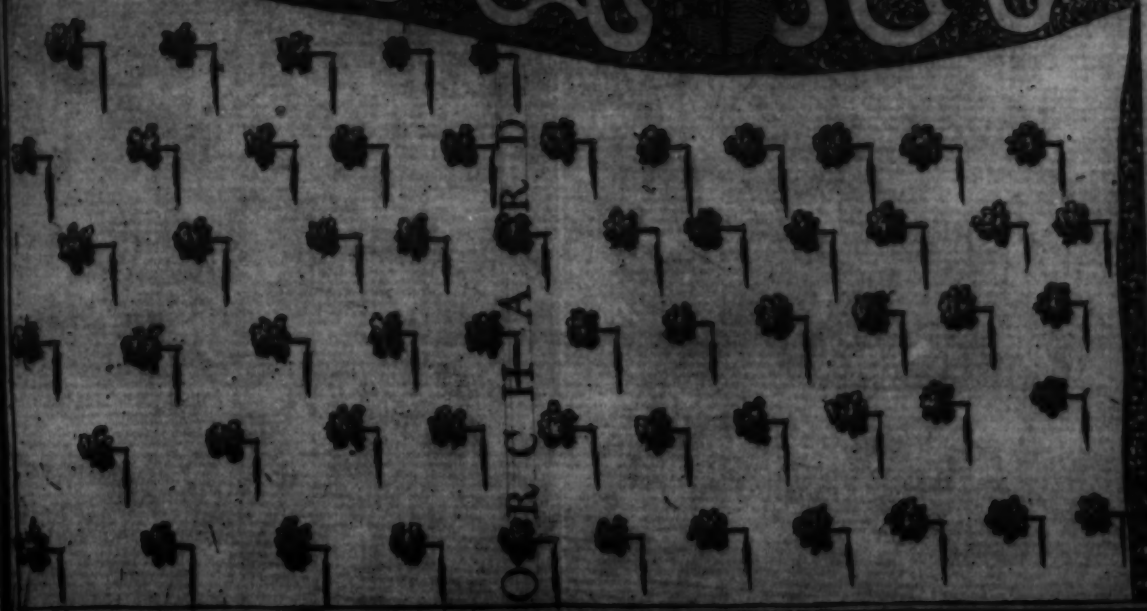
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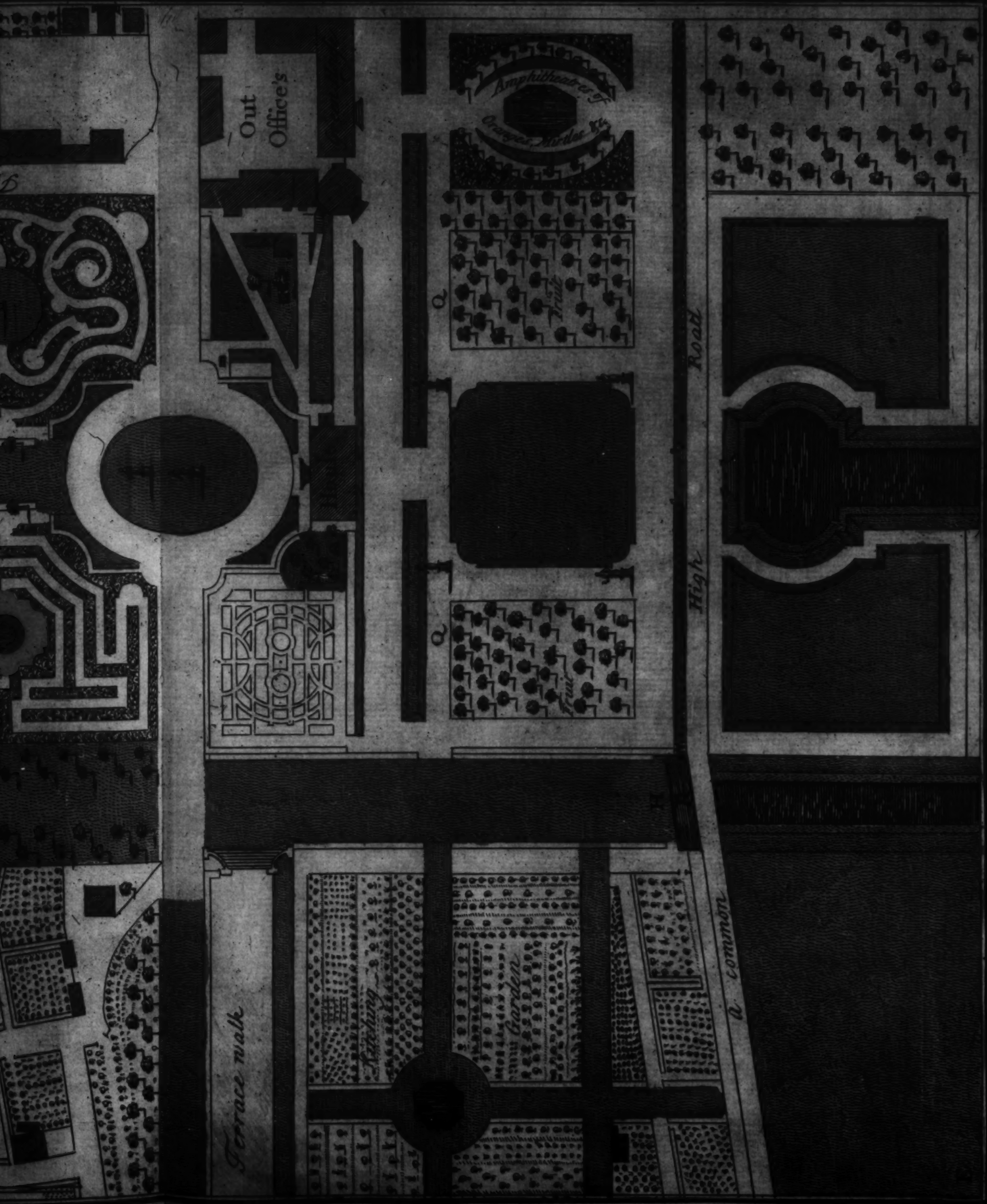


Improvement of the Labyrinth at Versailles
per B. Langley.



The coach Road leading from the High way, to the Grand House

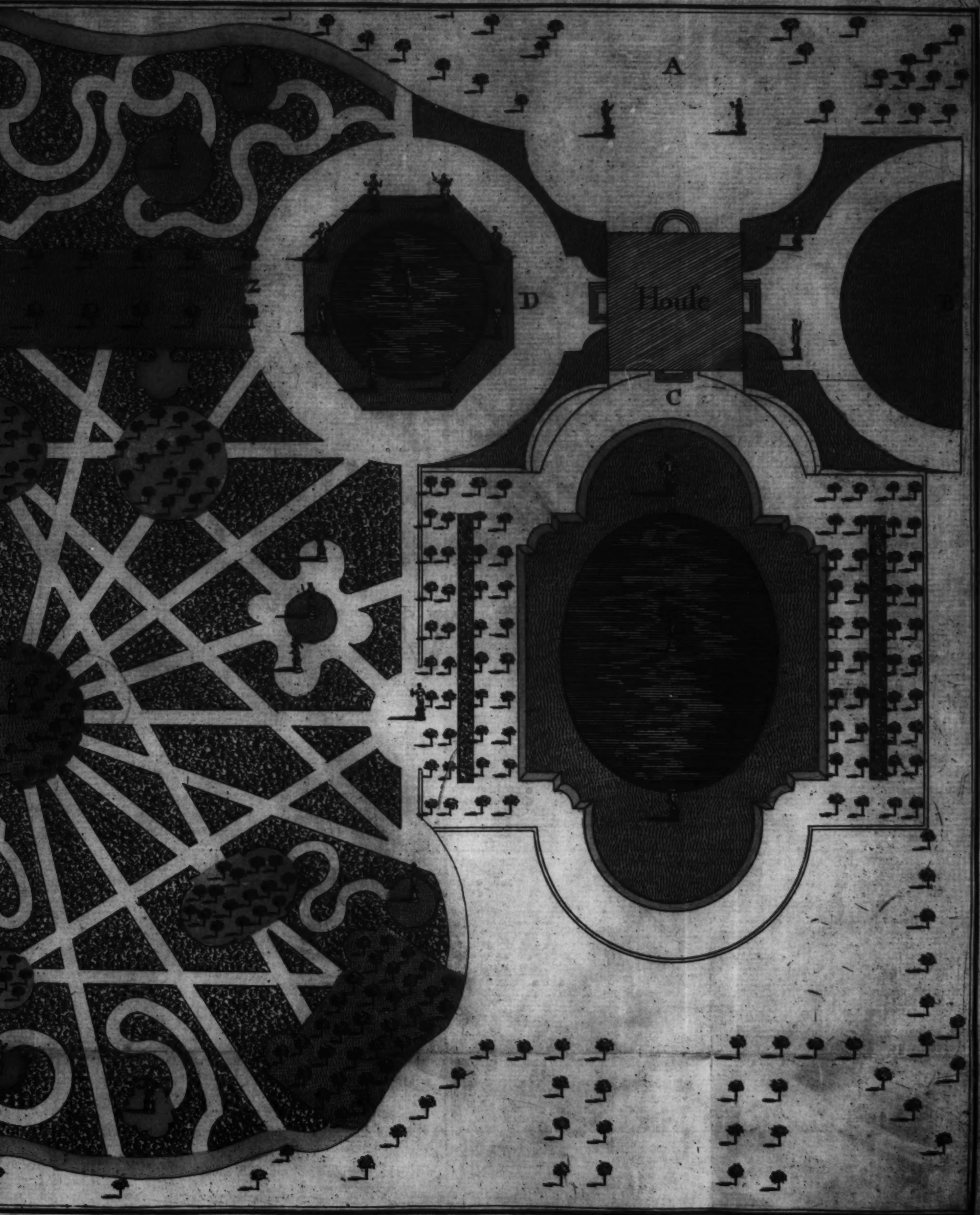




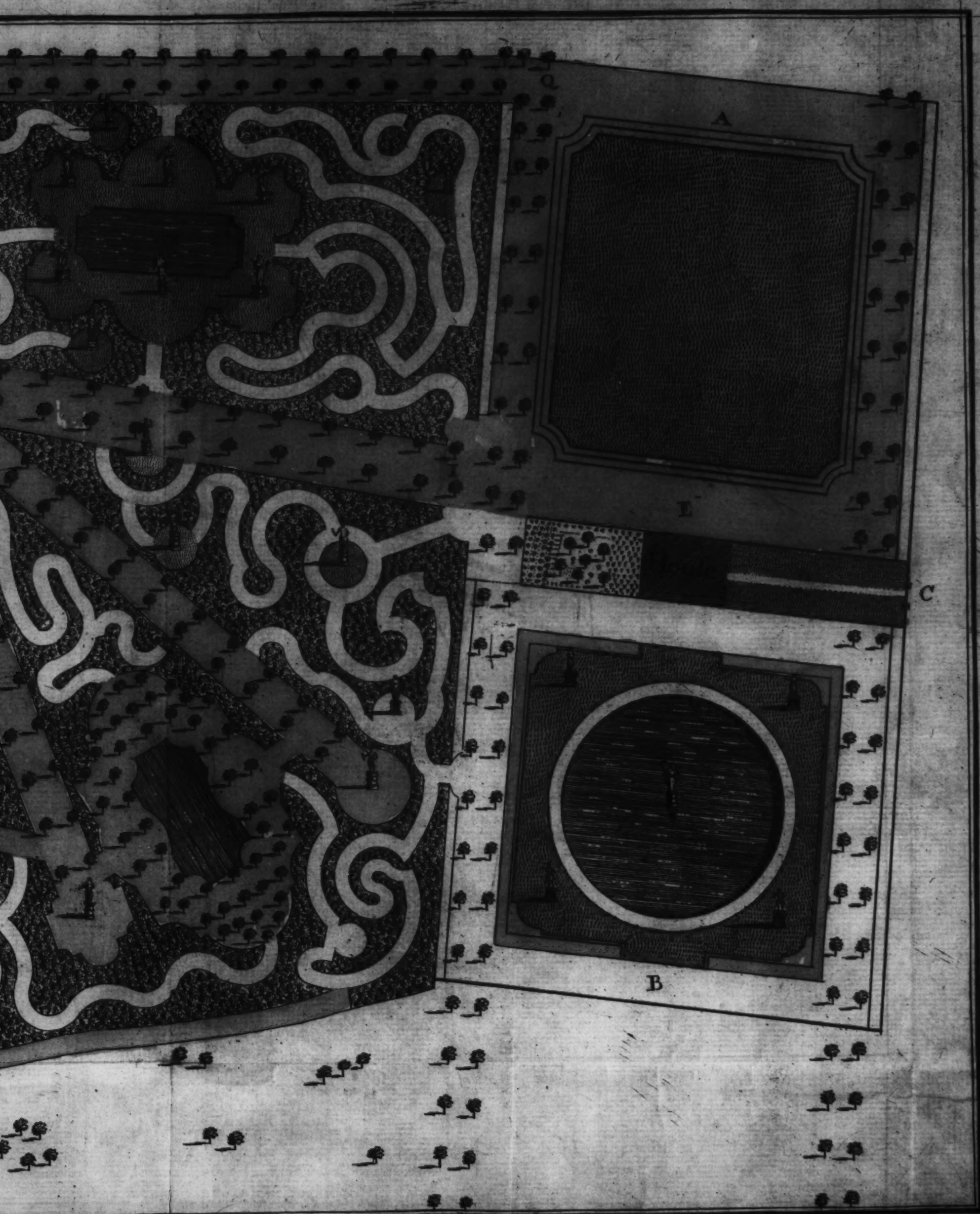


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NEW
PRINCIPLES
OF
GARDENING.

PART. IV.

Of Ever-Greens; their Culture, &c.

SECT. I.

Of the several Methods by which Ever-Greens are raised.



EVER-GREENS are propagated by *Seed, Cuttings, Layers, or Suckers.*

(1.) By *Seed*; as the Fir, Pine, Ever-Green, Oak, Holly, Yew, Bay, Box, Laurel, Phillyrea, Juniper, Piracantha, Arbutus, Italian Green Privet, Cyprus, Cedar of Libanus, &c.

U 2

(2.) By

New Principles of Gardening.

(2.) By Cuttings; as the Yew, *Laurus-tinus*, Bay, Box, Laurel, *Phillyrea*, and *Piracantha*.

(3.) By *Layers*; as the Holly, Yew, *Laurus-tinus*, Bay, Box, Laurel, *Phillyrea*, *Alaternus*, *Piracantha*, and *Arbutus*.

(4.) By *Suckers*; the Bay, Box, Laurel, and *Phillyrea*.

In the Propagation of some Ever-Greens from *Seed*, as Yew, Holly, &c. you must observe that their Seeds, don't come up till the second Spring after gathering. Therefore 'tis best to preserve them the first Summer in Sand, as directed for the Beech, Hornbeam, &c. and to sow them in Seed-Beds the Spring afterwards in the same Manner.

To raise *Ever-Greens from Cuttings*, 'tis best to do that Work in *October*, placing the Cuttings in Chopp'd Trenches about a Foot Distance from one another, and in the Rows three or four Inches asunder. The Length of Cuttings should never exceed fifteen Inches, and must be planted about eight or ten Inches in Depth, and between each Row so planted, 'tis best to lay in a moderate Thickness of Horse-Dung, which preserves their Roots, &c. from the Frost of the Winter, and keeps them cool in the following Spring and Summer, at which Times, in dry and hot Weather, they must be plentifully water'd.

The Method of increasing Ever-Greens by Layers, is perform'd in the very same Manner as that of Forest-Trees; in which you are to observe, that 'tis best to let the Layers of the *Arbutus*, and such hard-wooded Trees, remain on the Stools at least two Years before they are taken off.

S E C T. II.

Of the Pine-Tree; its Culture, &c.

THIS stately Tree deserves a much greater Respect than of late it has receiv'd; but I believe 'tis only owing to the great Mistake of planting it in a wrong Season, which oftentimes causes it to miscarry, to the great Loss and Discouragement

Discouragement of such Gentlemen as would gladly give it its due Encouragement.

The Season for planting this Tree is the End of *March*, or End of *August*; and not in *October*, *November*, *December*, *January*, or *February*, as has been the Custom hitherto, to the great Prejudice and Loss of many fine Plants. This Noble Tree delights in a fresh gravelly Soil, mix'd with Loam; but mortally hates Dung of any kind.

At the planting of these Trees, good Care must be taken to secure them with Stakes, that the Winds do not disturb them in striking Root.

And whereas I advise you in the planting of Forest-Trees, to cut off their Fibrous Roots at planting, you are now to observe the contrary Rule, which is to preserve all their Fibrous, and other larger Roots, seeing that their bruised Ends are cut clean, and all broken Roots taken quite out. The best Method of planting this, and all other Ever-Greens in general, to be certain of Success, is to make use of that sure and ingenious Manner of Planting, mention'd in SECT. 3. PART II. first, discover'd by the Honourable Mr. Secretary *Johnstone* of *Twickenham*; and whereas the Roots of this Tree do naturally run far from the Body in few Years, therefore they don't delight in being removed when grown large, and for that Reason I advise that they be planted for good, when but three or four Years of Age; and that they be safely preserv'd from Cattle, 'till they have Strength to preserve themselves from such Injuries.

This glorious Plant is most proper to be planted in *large Avenues* of *boundless Views*, to environ *Canals*, *Basons*, *Bowling-Greens*, &c. and in the *Quarters* and other Parts of a *Wilderness*, *Grove*, &c.

'Tis raised from Seed sowed in *February*, or Beginning of *March*, in a Seed-Bed, as was directed for Forest-Trees, &c.

N. B. That if you keep the Side-Branches prun'd off, as they break out, 'twill greatly add to their Growth: But always remember that *Pines*, *Firs*, &c. must not be headed at any Time whatsoever.

*The Pine, which spreads its self in every Part,
And from each Side large Branches does impart,*

Adds

New Principles of Gardening.

*Adds not the least Perfection to your Groves;
Nothing the Glory of its Leaf removes.*

*A noble Verdure ever it retains,
And o'er the humbler Plant it proudly reigns.*

*To the God's Mother dear; for Cybele
Turn'd her beloved Atys to this Tree.*

*On one of these vain-glorious Marfyas died,
And paid his Skin to Phoebus for his Pride.*

*Away of boring Holes in Box he found,
And with his artful Fingers chang'd the Sound.*

*Glad of himself and thirsty after Praise,
On his Shrill Box he to the Shepherds plays.*

*With thee, Apollo, next he will contend;
For thee all Charms of Musick do descend.*

*From the bold Piper soon received his Doom;
(Who strive with Heaven never overcome.)*

*A strong made Nut their Apples fortifies,
Against the Storms which threaten from the Skies.
The Trees are hardy, as the Fruits they bear,
And where rough Winds the rugged Mountains tear,
There flourish best; the lower Vales they dread,
And languish if they have not room to spread.*

S E C T. III.

Of Fir-Trees; their Culture, &c.

OF *Fir-Trees* there are divers Kinds, as the *Scotch Fir*, the *Silver Fir*, the *Spruce Fir*, and the *Norway Fir*.

The *Scotch Fir* is a beautiful Plant, and highly deserves our Notice; 'tis easily propagated by Seed as is before said of the *Pine*, and delights in good Land also. The *Spruce Fir*, is not so fine a Plant as the *Scotch Fir*, nor likewise the *Silver Fir*. However, they are both Beautiful Trees, when

when promiscuously planted in a *Wilderness*, *Grove*, &c. The *Norway Fir* is an excellent fine Plant for to make Hedges, it being a very close thick Grower, and of a beautiful Green: And the only Nursery, that I know of, as has this Tree, with all other Ever-Greens, Fruit and Forest-Trees, Flowering Shrubs, &c. in their best Perfection, is that of the ingenious Mr. *Peter Mason*, Nursery-Man at *Isleworth* in the County of *Middlesex*, who I dare to affirm, has one of the best Collection of *English* Fruits of any Nursery-Man in *England*; and on whom every Gentleman may safely depend of having, not only every Kind of Fruit exactly of the right Kind desired, but the very best Growth, and at reasonable Rates.

*Let lofty Hills, and each declining Ground,
(For there they flourish) with tall Firs abound.
Layers of these cut from some antient Grove,
And buried deep in Mould, in Time will move
Young Shoots above the Earth, which soon disdain
The Southern Blasts, and launch into the Main.*

RAPIN.

S E C T. IV.

Of the ILEX, or Ever-green Oak; its Culture, &c.

THIS Kind of Oak is to be valued for the great Services of its Timber, as well as the immediate Beauty of its Form and delightful Leaves, which are green all the Winter, &c. 'Tis a Tree of a quick Growth, and is naturally very large. 'Tis increas'd from its Acorn, and is as much inclinable to have Tap-Roots as the common *English* Oak. The Time of planting the Acorns is in *February*, when they should be planted in a Bed, about five Inches square off one another, and the Mould very fresh and good, always observing to keep them clean from

from Weeds, and to water them in dry Seasons, &c. Their Continuance in the Seed-Bed must be two Years; after which Time, they should be transplanted at proper Distances where they are to remain, at two Foot and a half, when to make Hedges, and if for Standards, not nearer than thirty Foot: They love a deep, loamy, moist Land. In the Gardens of that beautiful grand Seat of the late Earl of *Dyzart* at *Ham*, near *Richmond* in *Surry*, are many fine Hedges of this Plant, as well as a wonderful large Standard growing at the End of the Terrace, next to the Melancholy Walk, from whose Acorns those Hedges were raised.

The Observation of Mr. *B-d-y*'s in his *New Improvements*, Part I. Page 50. on the Tap-Roots of Trees, is entirely wrong; where he says, "If we consult the Anatomy of Plants, we ought to be very careful, not to injure their Tap-Roots, which are always answerable to the leading Shoot on the Top of the Tree; it is therefore reasonable to believe, that a Plant by losing of that downright Root, is in Danger of losing also the Top-Shoot, which is fed from it. And although a Tree may strike fresh Roots after the Amputation of this leading Root, yet we may find by Experience that the Sap will then push forth Branches in the Side of the Stem, and discontinue its upright Growth."

Now, when a Man writes to the World with a Design to inform Mankind, 'tis absolutely necessary, when he says, *I know, or have found this or that Thing by Experience, &c.* that he at the same Time should mention where, and when, and in what Manner he made those Experiments, with Demonstrations to prove the Truth thereof, which Mr. *B-d-y* has omitted. About ten Years ago, I planted a Wilderness of Oaks, Elms, Limes, *Platanus*, &c. for the late Honourable *Thomas Vernon*, at his Seat in *Twickenham-Park*, where in several Parts thereof, I made Experiments on divers Oak-Trees planted therein; part of which had their Tap-Roots carefully preserved, and others pruned off; and the Consequence was thus, viz. altho' those with Tap-Roots were planted near to those without, and in divers Parts of the Wilderness, whose Land differ'd very much in respect to its Goodness, yet in every different Kind of Land, those Trees whose Tap-Roots were cut away, grewed with much greater Vigour, and produced finer Perpendicular Branches than those whose Tap-Roots were not displaced; and indeed many of those

those with their Tap-Roots dwindled away, and in three Years Time died; whereas those whose Roots were pruned, that is, their Tap-Roots cut off, grew away with Strength and Vigour, and soon became stately Trees; so that the above Doctrine of Mr. *Bradley's*, of the Tap-Roots of an Oak being cut away, 'twill continue its upright Growth, appears to be like the Horizontal Shelters of Mr. *Laurence's*, viz. an Imagination or Self-Conceit only.

S E C T. V.

Of the Holly; its Culture, &c.

THE Wild or Green Holly is generally raised from its Berries, which must be gather'd when ripe, and afterwards sweated before they are put in Sand, as I have already directed: In which Operation Care must be taken, that they do not heat over much in their Sweat, for thereby it often happens, that they become useless, which greatly disappoints the diligent Planter. The Soil that this Plant delights in, is a sandy gravelly Ground, and is much inclining to have Tap-Roots, which must be prevented by being often transplanted, at least every three Years, as before directed for Fruit and Forest-Trees.

The best Time to remove this Plant, is in *April* or *August*, being planted in that Manner as directed for the Pine-Tree. If that you would graft or bud any of the varigated Kinds on the Green Holly, you must provide your self with Cuttings of such Kinds as you like, which may be grafted on young Stocks, of five or six Years Growth in *April*, or budded, if your Grafts should miss, in *July*. And in the Operation of grafting you must observe, that the Leaves of the Cutting be carefully cut off, the upper one excepted; that they be exactly placed Bark to Bark; that they be carefully tied with Bast, and well loam'd, that the Wet or Air do not get in at the Top, or any Part thereof, which will immediately kill the tender Graft or Cutting, and thereby disappoint

point you of the Success desired. The Bark of this Plant produces Bird-Lime, which may be made divers Ways, but none better than that prescrib'd by Mr. *Bradley* in his *New Improvements*, PART II. Page 11.

This Plant makes an excellent Hedge in either Garden, Wilderness, or common Field, and a good Fence against Cattle: 'Tis a Tree as will grow in the Drip or Shade of Forest-Trees, and is a beautiful Plant in the Quarters of a Wilderness or Thicket: Its Leaves are always beautiful, and the Berries afford a most delightful and agreeable Prospect in most Months of the Year. Besides this Green Holly, as produces red Berries, there is another Kind of Green Holly, that produces yellow Berries, and is a very beautiful Plant in a Wilderness, as aforesaid.

The several Kinds of Varigated or Bloach'd Hollies, are only beautiful when promiscuously planted amongst the Green Hollies in a Wilderness, in such a wild Manner as if placed there by Nature.

And also when planted in Hedges, to environ an open Compartment, Cabinet, Grove, &c. in a Wood or Wilderness, but never so fine when train'd up in those stiff Forms of round-headed Plants, or what the Gardeners call *Pediments*, meaning *Pyraments* or *Cones*. For a Holly is a Plant that loves Liberty, and is always in its greatest Beauty, when suffer'd to grow wild, without the Trouble of clipping by Sheers, &c. If Gentlemen did but compare the mean Aspect of their stiff clipp'd Hollies, with the Beauty of those free Growers on wild Commons, &c. they would never after suffer those fine Plants to be so often injur'd by the unthinking Gardener.

The pretty Invention, as called by Mr. *Bradley* in his *New Improvements*, PART II. Page 15. of planting Ever-green Hedges with *Columns* and *Pilasters*, or Varigated Hollies set in them at proper Distances, is entirely wrong; for the Nature of a Holly is such, that it cannot be pruned into those nice Members that are contain'd in the Bases and Capital of *Columns* and *Pilasters*. I could say much more on this Head, but at present shall forbear, seeing that it did not come from an *Architect* any more than from a *Gardener*; and therefore do advise, that where Hedges of Holly are to be planted, good Choice be made of such kind of Varigated Hollies as naturally grow thick, which mix in the Hedge-Lines in an irregular Manner with the Green Holly, just

as if Nature had been the Planter or Director thereof, and by this Means you will have the most beautiful Hedges that Art can produce. Of this kind of Holly-Hedge are many now growing in the delightful Gardens of Sir *Matthew Decas*, at *Richmond* in *Surry*.

I cannot well conclude this Section, without taking Notice of those wretched Figures many Nursery-Men and Gardeners breed up their Hollies and other Ever-Greens in, as the Forms of Men on Horseback, as against *Hyde-Park* Gate by *Kensington*; when they know no more of the Anatomy or Proportion of those Figures, than they do of the beautiful Proportions of Architecture, which they ignorantly attempt to execute, when they breed up Yews, Hollies, &c. in the Forms of Ballustrades, Pedestals, &c. with the most deform'd Body plac'd thereon, by them call'd a round or square Column, which hath neither Base, Shaft, or Capital, or indeed any one Thing in them as is beautiful or pleasing. And seeing that our *British* Nation does at this Time consist of the most noblegrand Planters and Encouragers of Gardening of any in *Europe*, 'tis to be hoped, that, for the future, better Rules will be observed therein, that is, such as are consistent with Reason, Art, and Nature; and that such Plants as have received such former Injuries, may be restored to their proper and natural Shapes as soon as Time can operate the same. To mention the several Gardens wherein these Abuses have been executed, would be endless; and therefore I shall only add, that most of the Ever-Greens now growing in the Parterres of his Majesty's Royal Gardens at *Kensington* and *Hampton-Court*, are of those disproportion'd Forms, viz. Columns placed on Pedestals, without any Sort of Order, wherein the Beauty of a Column consists, &c.

To conclude: When any Part of an entire Order of Columns in Architecture, as a Pedestal, Column, or Entablature is justly executed, nothing is of so grand and beautiful an Aspect. And on the contrary, when perform'd by an unskilful Hand, nothing appears so disagreeable. Hence it is that the Beauty and very Life of Architecture depends on good Proportions.

S E C T. VI.

Of the Yew-Tree ; its Culture, &c.

THE *Yew-Tree* is produced of Seed, or raised from Cuttings or Layers. Its Seed must be order'd as the Holly, because it will not come up till the second Spring after gathering.

'Tis a Tree of a very slow Growth, it loves a light sandy Soil something moist: It makes a beautiful Hedge, as well as fine Standards, to be mix'd with other Trees in Groves of Ever-Greens, and to grow wild in the Quarters of a Wilderness. To make any further Complaints of the Misapplication of this Tree in set Forms would be needless, seeing that the same has been sufficiently demonstrated in the last Section.

The best Season to remove this Plant in, is *August* or *April*, and should be planted in the Manner as directed for the Pine-Tree.

'Tis a Tree that generally has great Plenty of fibrous Roots, if order'd in the Nursery, by digging about them every Year, and being transplanted every third, as before directed. The Distance they should be planted in the Nursery, must be in the Rows about three Foot asunder, and the Rows from each other two Foot and a half.

S E C T.

S E C T. VII.

Of the Bay-Tree; its Culture, &c.

THE *Bay-Tree* is a beautiful Tree, and may be bred Standards, to be planted in an open Grove of Ever-Greens. 'Tis encreased from Seed, Layers, Suckers, or Cuttings. It delights in a gravelly, moist, shady Soil, and therefore best in a Grove or Wilderness. It must (as all other Trees) be kept well water'd after planting, which is to be done in *April* or *August*. To raise this Tree from its Seed or Berries, you must observe, that they are not gather'd before they are quite ripe, that afterwards you lay them thin, in a dry Place to sweat, which being over, put them into dry Sand, and keep them therein till the Middle of *February* next ensuing, and then sow them in a Bed of fine Earth, as directed for the Ashen-Keys, &c. When they have stood three Years in the Seed-Bed, you must transplant them into the Nursery, observing to prune off their Roots, and keep them digg'd every Year, free from Weeds, and transplanted every third Year, till they are planted out in the Places where they are to remain. Amongst all the Kinds of Ever-Greens, I know none more beautiful than the Bay-Tree, provided that its luxuriant Branches are pruned with a Knife, and not barbarously mangled with Sheers. To increase this Plant from Cuttings or Layers, you must observe to perform those Works in *October*, in the Manner as before directed. In some very hard Winters, the severe Frosts will discolour them, and the only Way to recover such Plants, is to head them down to sound and healthy Wood.

The *Dutch Bay-Tree* is more tender than our *English Bay-Tree*, and therefore requires to be shelter'd in the Green-House during the Severity of the Winter. Of this Kind of Bay-Tree, the finest, that I ever saw, are those in the Gardens of the *Royal Palace*

Palace at Kensington, and some others at the Lodge-Gardens in Windsor Great-Park, and in many Noblemen and Gentlemen's Gardens at Twickenham in the County of Middlesex.

*In watery Vales where pleasant Fountains flow,
 Their fragrant Berries lovely Bay-Trees show.
 With Leaves for ever green; nor can we guess,
 By their Endowments, their Extraction less.
 The charming Nymph liv'd by clear Peneus Side,
 And might to Jove himself have been ally'd,
 But that she chose in Virtue's Path to tread,
 And thought a God unworthy of her Bed.
 Phœbus, whos' Darts of late successful prov'd
 In Python's Death, expected to be lov'd;
 And had she not withstood blind Cupid's Power.
 The fiery Steed and Heaven had been her Dower.
 But she by her Refusal more obtain'd,
 And losing him, immortal Honour gain'd,
 Cherish'd by the Apollo, Temples wear
 The Bays, and ev'ry clamorous Theater,
 The Capital itself; and the proud Gate
 Of great Trapeian Jove they celebrate.
 Into the Delphick Rites, the Stars they dive,
 And all the hidden Laws of Fate perceive.
 They in the Field, (where Death and Danger's found,
 Where clashing Arms, and louder Trumpets sound,)
 Incite true Courage: Hence the Bays, each Muse
 Th' inspiring God, and all good Poets chuse.*

RAPIN.

S E C T.

S E C T. VIII.*Of the Laurel; its Culture, &c.*

THE *Laurel* is a noble Ever-Green, and a Tree of a quick Growth. It delights in the Shade, and is a great Embellishment to the Parts of a Wilderness. 'Tis a Tree that loves Liberty, and therefore very improper for headed or pyramment Plants. It makes a beautiful Hedge, being carefully pruned with the Knife, and not with its great Enemy the Sheers. 'Tis propagated from the Berries, Cuttings, or Layers; and when bred up as Standards, is wonderful pleasant in Groves of Ever-Greens, and within the Quarters of a Wilderness, its Cover is delightful to all Kind of Game, as Hares, Pheasants, Woodcocks, &c. and will thrive in any Land as is not over hot.

S E C T. IX.*Of the Laurus-Tinus; its Culture, &c.*

THE *Laurus-Tinus* is both an Ever-green and Flowering Shrub, and is all the Winter the most beautifullest Plant of any in the Garden.

'Tis increas'd by Layers or Cuttings, and is a very quick Grower, but never makes a large Tree. The Soil it delights in, is a moist sandy Loam, and in a shady Place. The best Form that this Tree appears in, is in either that of a Cone, or quite wild in a Wilderness. Also Hedges of this Plant is wonderful

wonderful fine, if their Beauty is not destroyed by the unskilful Hand of the Gardener, in clipping them at the same Season as he does Yews, Hollies, &c. The proper Season for to prune this Plant is, when all its Bloom is gone, which is in the Spring; just before they begin to shoot out their young and tender Branches.

It is best to lay down the Layers, or plant the Cuttings in *October*, and to transplant them in *August* following; as before directed for the Pine-Tree.

Of *Laurus-Tinus* there is two Sorts: The one, which blows very early; and the other, (called the black shining *Laurus-Tinus*), as blows late in the Winter, which continues until the end of *May*, and of the two, is the most beautiful.

S E C T. X.

Of the Phillyrea; its Culture, &c.

THE several Kinds of *Phillyrea's* are five, viz. The True *Phillyrea*, the Plain *Phillyrea*, the Bloach'd *Phillyrea*, the Dutch Silver-leafed and the Dutch-guilded *Phillyrea*.

These Kinds of *Phillyrea's*, in general, are best increased from Layers. They delight in a light Soil, and should be laid down in *September*, or *October* at latest, and planted the *August* after.

The true *Phillyrea* is a very slow grower; but makes a most beautiful Tree, and especially when bred up in the Form of a Cone. It will endure hard Weather, and values not the Insults of Winds.

The other four Kinds are less able to engage the Violence of a Storm, or to endure great Colds; therefore are best against a Wall, or in Thickets of Wildernesses, &c.

Let

*Let Phillyrea on your Walls be plac'd,
Either with Wire, or slender Twigs made fast.
Its brighter Leaf with proudest Arras vies,
And lends a pleasing Object to our Eyes.
Then let it freely on your Walls ascend,
And there its native Tapestry extend.*

RAPIN.

S E C T. XI.

Of the Arbutus, or Strawberry-Tree ; its Culture, &c.

THIS beautiful Plant produces Blossoms twice a Year, and its Fruit is ripe in the Winter: 'Tis a Plant that greatly adds to the Beauty of a Garden, Wilderness, &c. but will not admit of being clipp'd as most other Ever-Greens are; 'tis a very great Ornament to a Wilderness, and makes the most agreeable Hedge as can be desired: The Leaf is of a very agreeable Form, and of a pleasant lively Green; 'tis increased from Seed or Layers, which last, should be laid down in *September*, and remain upon the Stool two Years at least, to be well rooted, being always water'd in dry and hot Seasons. The Fruit is ripe about *Christmas*, whose Form is very like that of a Strawberry; but its Taste is like unto that of Service. When the Fruit is gather'd, let it dry; then break them to Pieces, which put into Sand, where they must remain until the End of *March*, or Beginning of *April*, at which time they must be sow'd in a Bed of fine Earth, cover'd about half an Inch with fine Mould sifted thereon.

Your Seed being thus sown, you must be careful to keep the Earth moist; and when you water it, take care that the Water's Force do not disturb the Earth, whereby the young Seedlings may be prejudiced. *N. B.* If you were to sow the Seed on a decay'd Hot-Bed, 'twould greatly help the Germination of the Seeds.

Y

S E C T.

S E C T. XII.

Of the Piracantha; its Culture, &c.

THIS Ever-Green is increased from Layers, or its Berries, which are to be order'd as those of the Yew, Holly, &c. because they do not grow, or at least come up, till the second Spring after they ripen.

The Perfections of this Plant are many; as, first, 'tis a free Grower, and with good Care will make a large Tree; secondly, its Leaves are of a very beautiful Form, and a pleasant Green; thirdly, its fine Bunches of white Blossoms, produced in *May*; and, lastly, its beautiful Clusters of red Berries which hang all the *Winter*.

'Tis a very proper Plant for a Hedge, in respect to its Thorns, and is very beautiful in the Quarters of a Wilderness.

Its Wood is of a very hard Nature; and therefore the most tender Branches of the last Years Shoot, are those you must lay down for Layers; which should be done in *October*, and remain upon the Stools two Years, before they are taken off, and in that time they will be well rooted, and fit to transplant; which may be done in *August* or *April*. Its proper Soil is a dry Gravel; but it will thrive in most loamy Lands, that are not very wet or cold.

S E C T. XIII.

Of the Box-Tree ; its Culture, &c

OF Box-Trees there are two Kinds; the one plain, and the other varigated; which are both raised from Slips, Layers, or Seed.

Their natural Soil is chalky mountainous Lands, but will grow very well in most loamy Soils. 'Tis a Tree that will grow to a very large Size, of which Box-Hill in *Surry* is a good Evidence.

It is a very pleasant Tree, to be mix'd with other Standards in a Grove of Ever-Greens: It makes fine Hedges, and is very beautiful in the Quarters of a Wilderness. 'Tis a Tree of a very slow Growth; but its Wood is of great Service for the making of Sectors, Quadrants, and other Mathematical Instruments; and will endure the hardest Frosts our Winters produces. Its Leaf is very small, and of a beautiful light Green, and is never so disagreeable as some makes it, in respect to its Smell.

Dutch Box is of a much lesser Growth, then the preceeding, being only used for the Edging of Borders, instead of Bones, Border-Boards, &c. and is of all others the most cheapest, handsomest, and lasting Edging; but the most improper to Edge such Borders with wherein Fruit-Trees are planted, except they are very broad, and the Roots of the Box cut away every Year, on that side that is next to the Fruit-Trees, by a Spade, or the like, at the Time when those Borders are digg'd; for you must understand that this kind of Box grows more in its Roots, than its Top, and is an open Robber of every Plant or Shrub that grows near it.

S E C T. XIV.

Of the Juniper ; its Culture, &c.

OF this Kind of Ever-Green we have two Sorts, *viz.* the common *English* and *Swedish* Juniper ; which are both hardy Plants. They are of a beautiful Green, and makes a very fine Variety, being planted wild amongst other Ever-Greens in a Wilderness Thicket, &c. They both delight in a dry poor Soil ; but are improved by a good sandy Loam.

They are increased from their Berries sown in *March*, in dry light Ground, and will come up in six Weeks or two Months after sowing. They must remain in the Seed-Bed two Years before they they are transplanted, during which Time they must be carefully kept clean from Weeds, and water'd in a very dry Season. *N. B.* That the oftner these Sorts of Trees are transplanted, the better they will be rooted ; and in the pruning of them, observe to cut off their Tap-Roots, and in planting to place their other Roots, in a Horizontal Position. I will not here undertake to describe the several Virtues belonging to that so much celebrated Liquor as is distill'd from the Berries of this Plant, because 'tis already known to every old Woman ; but for such as are curious herein, I believe, may be fully inform'd in the *Ladies Diary*, not long since published, or other such Books of the like Nature.

S E C T. XV.

Of the Italian Green-Privet.

THIS kind of Privet, is increased from its Berries, sown in *March* on a Bed of light Earth, inclinable to a Gravel, which is the Soil it most delights in, covering the Berries about an Inch thick with fine Earth sifted over them, observing

serving in dry Weather to keep them frequently water'd, and always clear of Weeds.

When they have stood two Years in the Seed-Bed, they should be transplanted into Hedges, or the Quarters of a Wilderness; which in both Places are very beautiful.

This Plant is of a very quick Growth; and altho' 'tis a Foreigner, yet 'twill endure the Violence of our Winters Frosts, &c. without any kind of Prejudice to its Verdure.

This sort of Privet was brought from *Italy* by the ingenious Mr. *Balle* of *Kingsington*, which by the *Italians* is called *Olivetta*, because its Leaves are not unlike those of the Olive.

S E C T. XVI.

Of the Cyprus, Lignum-Vitæ, and Cedar of Lebanon; its Culture, &c.

AMONGST all the Ever-Greens hitherto treated off, none make a more grander Appearance in a Garden, than the *Cyprus*, and *Cedar of Lebanon*; neither is any Tree so easy to be cultivated; for their Ordering has no sort of Difference from that of an *Ever-Green*, *Oak*, *Pine*, &c.

I have observ'd in several old Gardens, divers fine Walks of those Trees, far exceeding all others I ever saw of any kind, which of late have been destroy'd; to the great Shame of those as were the Instruments of their Death.

I am not insensible of displeasing some People herein; but that regard not, since my Abilities are capable to prove the Truth of what I have asserted; and indeed, amongst all those Sacrifices, I can't but say, that I was heartily sorry to hear of the Destruction of that old and grand Walk of *Cyprus* Trees, not long since growing in the Gardens lately in the Possession of the *Lady Humble* at *Twickenham*. However, for the future, I hope to see these Trees flourish, and be kindly received in the
most

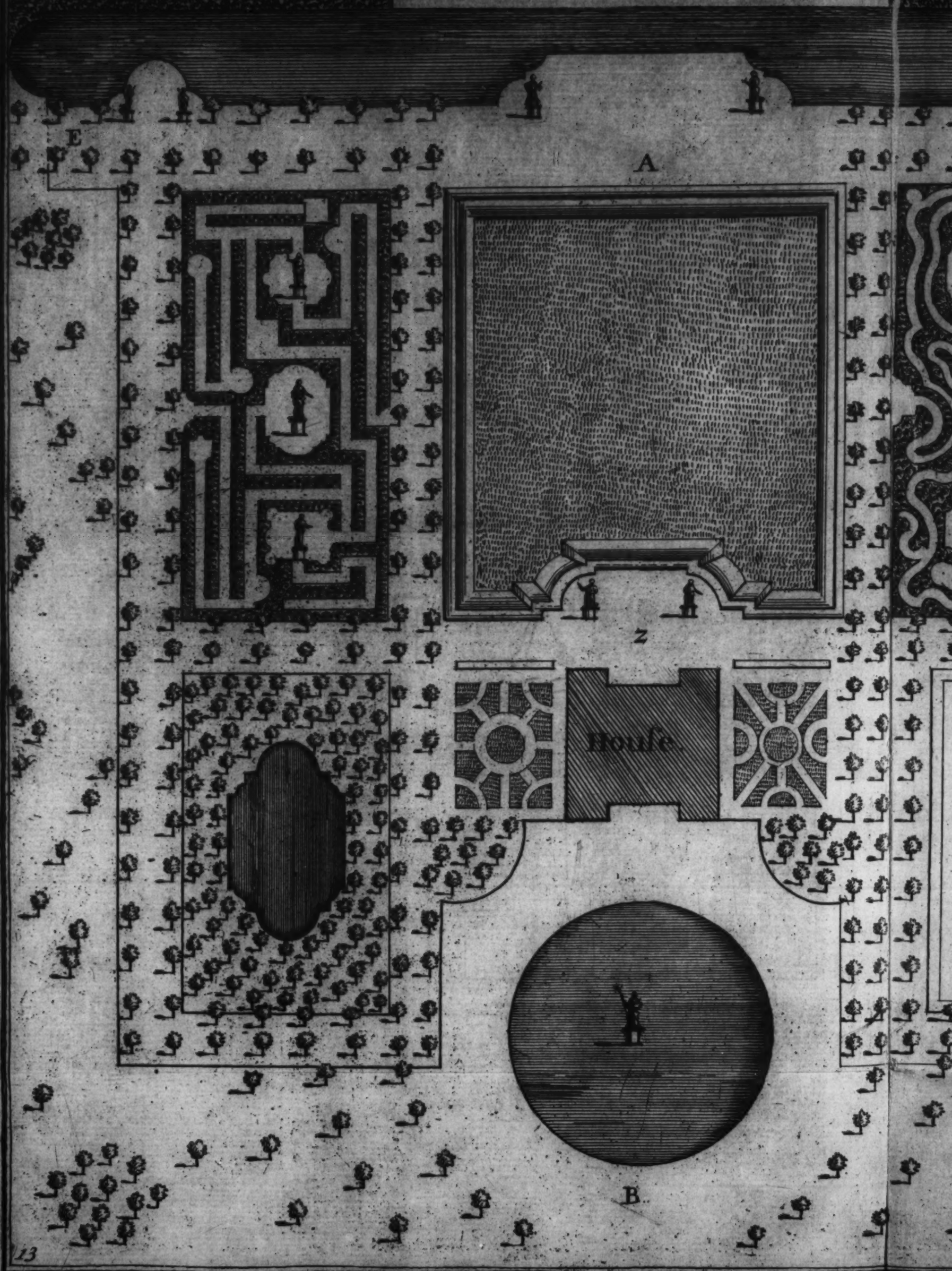
most grand Parts of our Plantations, wherein they are a very great Enrichment.

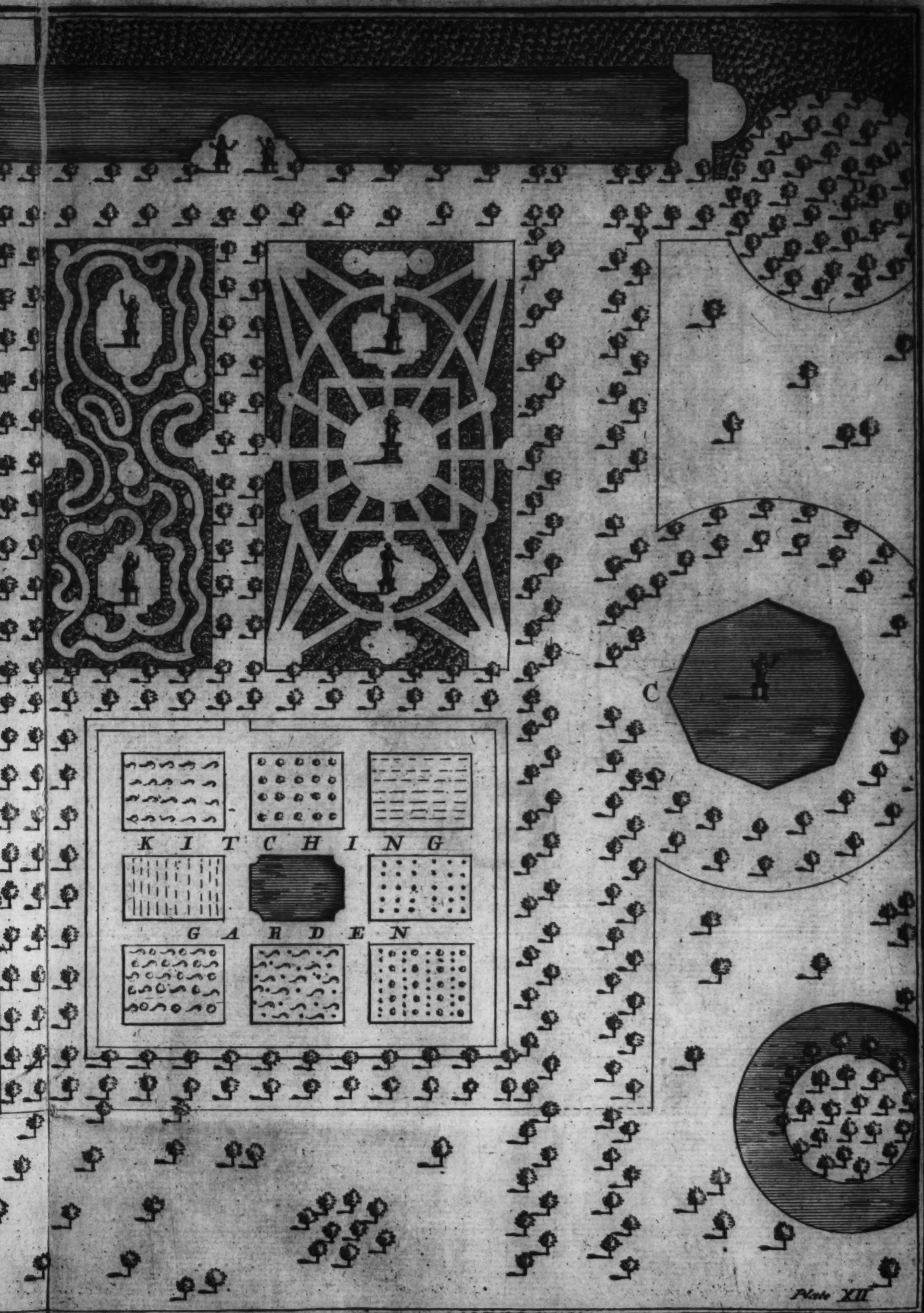
*Though Cypresses contiguous well appear,
They better shew, if planted not so near.
And since to any Shape with Ease they yield,
What Bounds more proper to divide a Field?
Repine not Cyparissus then in vain,
For by your Change, you Glory did obtain.
Silvanus and this Boy with equal Fire,
Did heretofore a lovely Hart admire:
While in the cooler Pastures once it fed,
An Arrow shot at random struck it dead.
But when the Youth the dying Beast had found,
And knew himself the Author of the Wound;
With never-ceasing Sorrow he laments,
And on his Breast his Grief and Anger vents.
Silvanus mov'd with the poor Creature's Fate,
Converts his former Love to present Hate,
And no more Pity in his angry Words,
Than to himself th' afflicted Youth affords.
Weary of Life, and quite oppress'd with woe,
Upon the Ground his Tears in Channels flow:
Which having water'd, the productive Earth,
The Cyprus first from thence deriv'd its Birth,
With Silvan's Aid; nor was it only meant,
T' express our Sorrow, but for Ornament.
Chiefly when growing low your Fields they bound,
Or when your Garden's Avenues are crown'd,
With their long Rows, sometimes it serves to hide,
Some Trench declining on the other Side.
Th' unequal Branches always keep that green;
Of which its Leaves are ne'er destitute seen:
Though shook with Storms, yet it unmov'd remains.
And by its Trial greater Glory gains.*

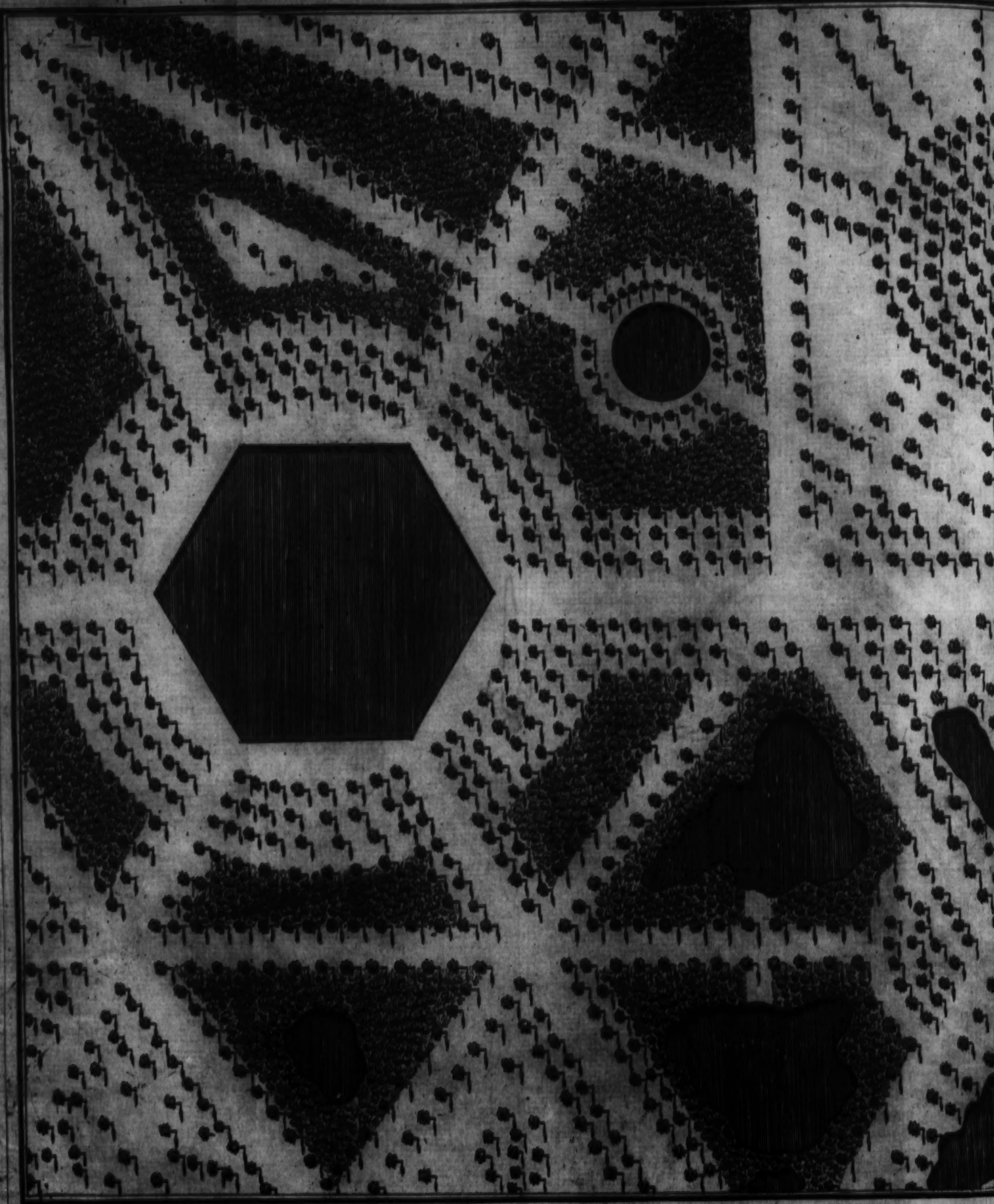
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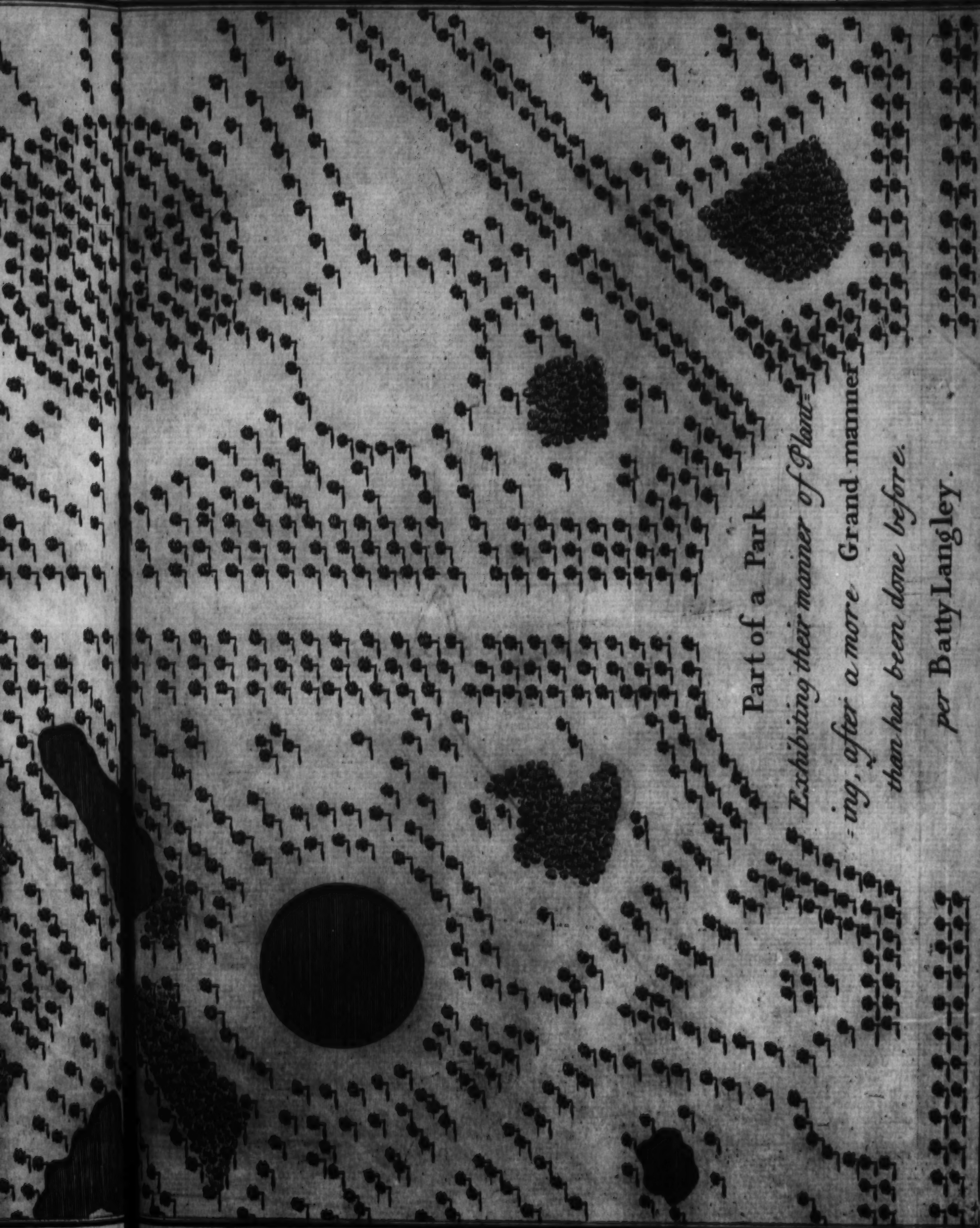
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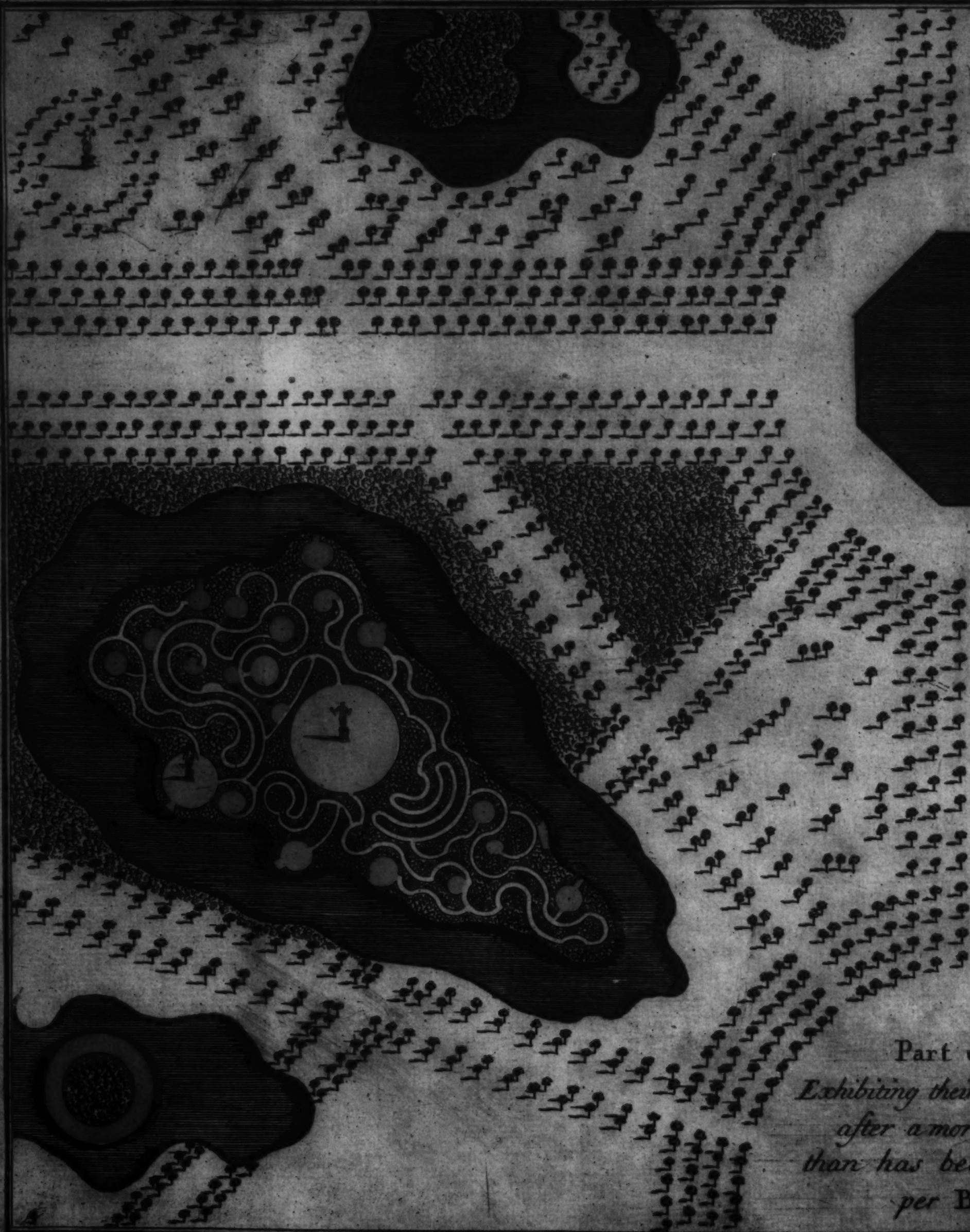
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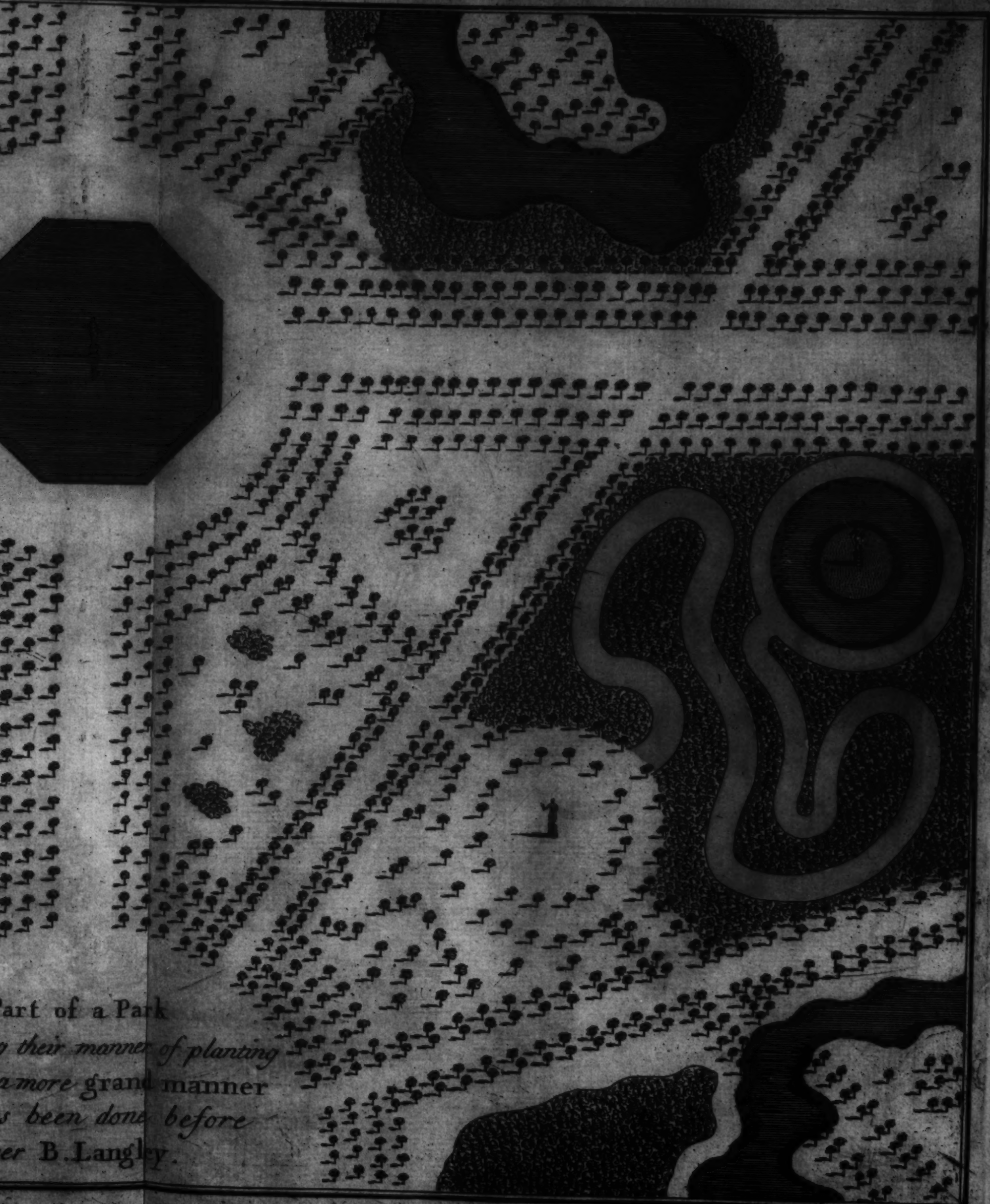
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NEW
PRINCIPLES
OF
GARDENING.

PART. V.

Of Flowering-Shrubs; their Culture, &c.

SECT. I.

Of the several Methods by which Flowering-Shrubs are raised.

FLOWERING-SHRUBS are propagated from *Layers*, *Suckers*, *Cuttings*, or *Seed*.

(1.) Those propagated from *Layers*, are the *Jessamine*, *Honey-Suckles*, *Lilacs*, *Roses*, *Senna*, *Pomegranate*, and *Althea Frutex*. (2.) From *Suckers*, are the *Lilac*, *Spiræa Frutex*, *Syringa*, and *Guilder-Rose*. (3.) From *Cuttings*, are *Jessamine*, *Honey-*

Honey-Suckles, and Pomegranate. And, lastly from Seed, are the Tulip-Tree, Maracock, or Passion-Flower, Spanish Broom, Laburnum, Bladder Senna, Scorpion Senna, Arbor Judæ, and Mezerion.

I need not here repeat the Method of laying down the Layers, planting the Cuttings, or sowing the Seeds, of the most common Sorts, because that the same Method is to be observed herein, as directed for the Ever-Greens, &c. But for the uncommon Kinds, as the Tulip-Tree, &c. I shall be more particular therein.

S E C T. II.

Of the Tulip-Tree; its Culture, &c.

THIS beautiful Tree, though rank'd amongst the Shrubs, in regard to its Flowers, yet 'tis a Tree of a very great Growth.

In the Lord *Peterborough's* Wilderness, at *Parson's-Green*, near *Fulham* in *Middlesex*, is growing a most beautiful and stately Tree of this Kind, and of as great a Height as most Timber-Trees. 'Tis an Inhabitant of the Wood, which is demonstrated by its not thriving in an open Exposure, and is a beautiful Tree to compose Part of a Grove of Forest Trees. The Leaves are like the Maple, and of a pleasant Green; and its Flowers like unto a Tulip, from which 'tis called the Tulip-Tree, which are produced at the Ends of the Branches.

The Petals of the Flower are mighty beautiful, being of a yellow Ground, varigated with a delightful Red.

The Fruit which succeed those curious Blossoms, are of a conical Form, but never ripens in England.

And as this noble Tree is a Native of *Carolina* and *Virginia*, (at which Places its Seed ripens very well,) 'tis from thence we must receive the Seed that we propagate our Plants from in
England

England. But if we suffer young Shoots to break out at bottom, or cut down the Plant as a Stool, and the young Shoots being laid down, as Layers of Lime, &c. they will strike Root, and grow very well. The Soil it delights in, is a sandy warm Loam: Its Seed must be sown in *August* at latest, in Pots fill'd with the aforesaid Soil, which must be sheltered all Winter; and in the Spring they will come up: At which time keep them clean from Weeds, and do not suffer them to be over dry for want of Water.

When your young Nursery, has lived two Years in the Seed-Pots, they must be transplanted into larger Pots singly, wherein they must remain for eight or ten Years, being sheltered every Winter, and taken up, and replanted again in the same Pots, to create good Roots, every third Year; which will support its Trunk when planted out, with sufficient Plenty of Juices, and greatly add to its future Growth.

S E C T. III.

Of the Maracoc, or Passion-Plant.

ALTHOUGH there may be many Kinds of Passion-Trees in other Parts abroad, as in *Amsterdam* Physick Gardens, &c. as mention'd by *Tournefort* in his *Elements of Botany*, p. 206. yet we have but one that will resist the Severity of our Winters. This Flower was first discover'd by the *Spanish* Friars, in the West-Indies, of which Place 'tis an Inhabitant: The Magnitude of each Flower, when full blown, is generally about four or five Inches Diameter, wherein are ten Petals, divers staminous Threads, and other Particles; which together, the Friars supposed was an Epitome of our Saviour's Passion, and therefore called it the Passion-Flower. *Vide Bradley's Improvements, Part II. Page 52.*

The Soil it best delights in, is a very moist cool Soil, well mix'd with Cow Dung: 'Tis increased from Layers or Cuttings; the first laid down in *March*, towards the Beginning of the

Z

Month,

Month; and the latter planted in the End of *May*, or Beginning of *June*. 'Tis a Plant of a quick Growth, best against a Wall, and is a very great Embellishment to the Pleasure-Garden.

S E C T. IV.

Of the Spanish-Broom ; its Culture, &c.

THIS is a beautiful Shrub for a Wilderness, being mix'd amongst other Plants: Its Leaves are of a delightful Green, and its Flowers of a pleasant Yellow, which put forth in *June* and *July*. 'Tis generally increased from its Seed sown in *March*, on a Bed of light Earth; but it may be increased from Layers, laid down with a Twist as an Elm, or being cut at a Joint as a July-Flower.

S E C T. V.

Of the Laburnum, its Culture, &c.

THIS delightful Shrub is of a quick Growth, and of great Beauty in a Wilderness, when it produces its beautiful Clusters of yellow Blossoms in *May* and *June*. Its Nature is very agreeable to either Shade, or open Exposure; but best when mix'd with Forest-Trees, as Platanus, Elm, Lime, &c. 'Tis propagated from its Fruit, or Seed, which is ripe in *September*, and very like unto young Peascods, just before ripe. The Time to sow this Seed is in *March*, and must remain in its Seed-Bed for two Years; after which, it may be transplanted at Pleasure, when other Trees are planted.

S E C T.

S E C T. VI.Of *Senna*; its Culture, &c.

OF this Kind of Shrub, there are two Sorts, *viz.* the Bladder-Senna, and the Scorpion-Senna; of which, the last is the most beautiful. They both delight in a good loamy Soil, and may be propagated by Seed sown about the Middle of *March*, or by Layers laid down in *October*, or *April*. They are Lovers of the Shade, and are mighty beautiful in the Quarters of a Wilderness. The latter of the two produces Blossoms, as well in the Autumn, as in the Spring; that are very delightful.

S E C T. VII.

Of the *Arbor Judæ*; its Culture, &c.

THIS Shrub is naturally a *West-Indian*, and has not long been brought into *England*. 'Tis of a large Growth; it delights in a loamy Soil; produces beautiful Clusters of Blossoms in *March*, *April*, and *May*; it resists the Severity of our Climate; 'tis propagated from Seed sown in *March*; and is a beautiful Plant in a Wilderness.

S E C T. VIII.

Of the Mezerion; its Culture, &c.

OF Mezerions there are two Kinds, *viz.* the White Mezerion, and the Red Mezerion; of which, the last is the most common. They are both of a small Growth, and therefore are rather more proper for open Borders, than the Quarters of a Wilderness.

In *January*, the Air is perfum'd with the delightful Odour of their Blossoms, which cover their Branches long before their Leaves come out, and continue a long Time in Bloom. When their Blossoms are gone, they still appear no less beautiful, being adorn'd with their Vermillion Berries, mix'd amongst their beautiful Leaves, which makes a most delightful Composition.

They are increased from their Berries sown in *March*, and love a sandy Loam.

S E C T. IX.

Of the Jessamine and Honey-Suckle, their Culture, &c.

THESE Flowering Shrubs are not inferior to any of the preceding, in regard to those most pleasant (I may say heavenly) fragrant Odours which perfume the Air, even into its distant Atmosphere, produced by their beautiful Blossoms.

(1.) JESSEMINES;

(1.) Of *JESSEMINES*, there are three Kinds, *viz.* the White, the Yellow, and the *Persian*. The common White Jessamine is a free Grower, and resists the Severity of our Winters: It produces its beautiful fragrant Flowers in *June*, and continues in Bloom till *September*: 'Twill grow in any loamy Land, and is increased from Layers laid down, or Cuttings planted in *September*; wherein observe, that in Consideration of their Roots striking at their Joints, therefore be careful to bury two or three in the Ground to either Layer or Cutting, and they will succeed to your Desire.

The Beauty of this Plant is so great, that in my humble Opinion, a Garden cannot well have too many of them. And as this is a Plant of Liberty, it must therefore be planted at the Bottom of Standard-Trees, in Groves, Walks, &c. and even in Hedges also, wherein 'twill intersperse itself with its delightful Blossoms, and pleasant Odour.

And altho' it has been the Practice of Breeding this Plant up in headed Plants, yet I cannot commend it, seeing that it naturally hates to be either confined, or stump'd with Sheers.

The *Spanish* White Jessamine may be grafted on this common White: 'Tis a sweet delightful Flower; as also are the *Italian* and *Portugal* Jessamines, whose Blossoms are very large and beautiful.

The *Persian* Jessamine is a beautiful Shrub: Its Flowers are Purple, and will endure the Winter's Frosts.

The Yellow Jessamine, is also a very agreeable Shrub, and will endure the Severity of our Climate.

(2.) *HONEY-SUCKLES*; of which, there are several Kinds, as the Ever-green, the Early-red, the Late-White and Red, and the Scarlet-flower'd Honey-Suckles. They, in general, are increased from Layers, or Cuttings, as the Jessamine. They are all Lovers of Liberty, and when bred up in headed Plants, make a most terrible Figure all the Winter.

They delight in the Shade, and love to clamber on other Trees. They are Natives of the Woods, of a quick Growth, but incapable of supporting their own Bodies, and therefore borrow the Use of their neighbouring Trees to assist them therein.

And as their Blossoms perfume the Air with their delightful Odours all the Summer, 'tis impossible that a Garden can have too many, being carefully planted, so as to run up Standard-Trees, Hedges, &c. as before is said of the Jessamine.

Thus

Thus says RAPIN of the Gardener.

*Nor knows he well to make his Garden shine
With all Delights, who fragrant Jessamine
Neglects to cherish, wherein heretofore
Industrious Bees laid up their precious Store.
Unless with Poles you fix it to the Wall,
Its own deceitful Trunk will quickly fall.
These Shrubs, like wanton Ivy, still mount high,
But wanting Strength, on other Props rely.
The pliant Branches which they always bear,
Make them with Ease to any Thing adhere.
The pleasing Odors which their Flow'rs expire,
Make the young Nymphs and Matrons them desire,
Those to adorn themselves withall; but these
To grace the Altars of the Deities.*

RAPIN

S E C T. X.

Of the Lilac; its Culture, &c.

TH E Lilack is a very handsome flowering Shrub; of which there are two Sorts, viz. the White, and the Blue, whose Flowers are very beautiful: 'Tis a great Embellishment to a Wilderness, and is a Shrub of a large Growth; they are both raised by Layers laid down in March, or by Suckers taken off and planted in September or October: And love a light Soil.

S E C T.

S E C T. XI.

Of Roses; their Culture, &c.

OF Roses we have a very great Variety, which are in general, very pleasant and delightful; as, *First*, the Monthly Rose, that blows singly, and that which blows in Clusters. 'Tis best to have some of this Sort planted against a South-Wall, which will cause them to blow early, as at the End of *March*, or Beginning of *April*, and continue till the Middle of *June*. Those of the same Kind, planted in open Borders, will not produce their Bloom till the Middle of *May*, and will continue till the Beginning of *August*. And you must observe as soon as their Blossoms are gone, to top their Branches; which will cause a second Bloom in the Autumn, that will continue till near unto *Christmas*.

Secondly, The Cinnamon Rose, a forward Blower, and a fine Flower.

Thirdly, The Damask Rose, of an excellent pleasant Odour: It blows in *May*, and will last for six or seven Weeks.

Fourthly, The Cabbage Rose.

Fifthly, The *Rosamundi*, or *York* and *Lancaster* Rose.

Sixthly, The Province Rose.

Seventhly, The White Musk-Rose.

Eighthly, The Red Rose.

Ninthly, and *lastly*; The Yellow Rose.

All which are propagated from Suckers or Layers: The last laid down in *September* or *October*, and the first planted in *October*. They are, in general, beautiful Ornaments in a Grove, Wilderness, or any other Part of the Garden, and highly deserves our Notice, much more than they have had hitherto.

S E C T. XII.

Of the Pomegranate ; its Culture, &c.

OF this Plant there are two Kinds, *viz.* the Single, and the Double-blossom'd Pomegranate, whose Blossoms are of a beautiful Vermillion Red. Of which, the first frequently produces Fruit, and sometimes ripens with us. These Plants delight in a light Soil, and are propagated from Cuttings, planted in *August* or *September*, on an East Border; or from Layers laid down at the same Time, or in *March*. They are both beautiful Plants, and are best for a Wilderness, rather than for headed Plants, which, by being often clipp'd, soon proves their Ruin: 'Tis a hardy Plant, and will endure the Winter Frosts, cold Winds, &c.

S E C T. XIII.

Of the Altheæ Frutex ; its Culture, &c.

THIS Plant is used chiefly to adorn the Quarters of a Wilderness: Of which, there are two Sorts, *viz.* the White, and the Purple-flower'd: They are both propagated from Suckers, or Layers, laid down in *September*; or from the Seeds, sown in the Middle or End of *March*. Their Blossoms are very beautiful, which do appear in great Plenty in *August*. They afford a good Prospect; and will thrive in any Kind of sandy Loam, or other Soil whatever, Clay excepted. The Time for Planting this Shrub, is *October*.

S E C T.

S E C T. XIV.*Of the Syringa; its Culture, &c.*

THIS Shrub is of great Beauty in a Wilderness, producing fine Bunches of fragrant Blossoms in *May*, whose Odour is very pleasant, and not unlike that of Orange Blossoms. It delights in such Part of a Wilderness as is not entirely shaded, or quite open. 'Tis propagated from Suckers taken off, and planted in *October*, and is a very free Grower.

S E C T. XV.*Of the Guilder-Rose; its Culture, &c.*

AMONGST all the Flower-Tribe hitherto mention'd, none makes a more grand Appearance in *May*, than the Guilder-Rose, whose beautiful Blossoms are produced in great Clusters; and each Flower a perfect Globe of three or four Inches in Diameter. 'Tis a Plant that will rise twelve or fourteen Foot high, and is very beautiful and pleasant in a Wilderness. The Soil it delights in, is a good strong Loam; and it is propagated from Suckers taken from the Mother Plant, and planted in *October*.

S E C T. XVI.*Of the Almond; its Culture, &c.*

THE Almond-Tree is a very beautiful Tree during the Time of its Bloom in the Spring, and highly deserves a Place in our Wilderness. 'Tis propagated from the Kernels sown in *March*; or it may be grafted on the Plumb-Stock in *February*, or budded thereon in *July*. The Soil proper for this Plant, is a sandy Loam, if raised from its Kernel; and when grafted or budded on the Plumb-Stocks, on a stronger Land.

S E C T. XVII.

Of the Mirabalon Plumb, and Double-Blossom'd Cherry.

THESE two Plants produce great Quantities of Bloom in the Spring, and continue their Blossoms a long Time. They are wonderful beautiful, when mix'd in a Wilderness amongst Almond-Trees, and will thrive in most Soils. They are both propagated by being grafted, the first on a Plumb-Stock, and the latter on a Cherry-Stock.

S E C T.

S E C T. XVIII.*Of the Sweet-Brier ; its Culture, &c.*

ALTHO' the Sweet-Brier is not directly a flowering Shrub, yet its fragrant Odour highly obliges us to plant it in all Parts of our Gardens and Wilderesses, and especially for Hedges, and at the Bottoms of Standard-Trees, &c. And besides this common Sort, there is another Kind of it called *Eglantine*, which produces a fine red Flower, with broad Leaves, that perfumes the Air very strongly with its pleasant Odours. The first Kind hereof is raised from Berries sown in *February*; and the latter propagated from Layers laid down in *September*. This last Kind makes very beautiful headed Plants, which are very proper to be raised in Pots, to adorn the Ladies Chimneys, and perfume the Air of their Chambers with its pleasant and most delightful Odours.

S E C T. XIX.

Of the Furze-Bush, and English Broom ; their Culture, &c.

TH E Beauty of these two Shrubs, seems to be valued much after the very same Manner as a curious Tulip, Auricula, Julyflower, &c. is by Florists, when 'tis become common, and in every Garden. Whilst on the other Hand, if they chance to have a Seedling whose Blossom is an indifferent good one, and not near so good as that which is common;

A a 2

common; yet the Seedling shall carry the Bell, and that which far exceeds it, be not regarded: Which indeed is the Case of these two Shrubs; for were they not common, they would be valued, and cultivated with as much Eagerness as any Ever-green or Shrub whatsoever; for, in Fact, the Furze is capable of any Form required, but much finer when let grow in its own rural Manner as Nature directs. If the Beauty of this Shrub, that is, its fine green Leaves, which serve for a proper Ground to cast forth the Beauty of its yellow Flowers, with which it abounds in all Seasons of the Year, was compar'd with that of the long-esteem'd Yew, whose Aspect is melancholy, and the true Image of Sadness; 'twould not only be found to be much the finer Plant of the two, but more deserving the Gardener's Care.

For to speak the naked Truth, the Yew-tree is never better placed, than when planted in a Church-yard as an Emblem of Mortality, which is its true Representation, and, in my humble Opinion, very improper for a delightful Garden.

But to return to the Culture of these Plants; observe that they are both raised from Seed sown in *February* or *March*, but are difficult to remove; therefore transplant them the *October* next after Sowing, in such Places where they are to remain. They both make good Cover for Game; and the Furze makes a most beautiful Hedge, wherein many Birds take great Pleasure to build their Nests, which is not a small Ornament to either Garden or Wilderness.

S E C T. XX.

Of the several Months of the Year, when Flowering Shrubs are in Blossom, and their Duration.

THE first blowing flowering Shrub is the *Mezerion*, which presents its *beautiful Blossoms* in *January*, and continues in Bloom to the Middle of *February*.

In *February*, the *Furze* opens its golden-colour'd Bloom, which continues till *October*.

In

In *March*, } the *Arbor Judææ*, and holds till *May*.
In *April*, }

In *May*, the *Lilac*, *Syringa*, *Guilder-Rose*, *Laburnum*, and *Honey-Suckles*; of which, the several Kinds of the last keep blowing till *September*; but the others, about six or seven Weeks at most.

In *June*, the *White Jessamines*, and *Spanish Broom*; the first till *September*, and the last till *August*.

In *July*, the *Tulip-tree*, which continues till *August*.

In *August*, the *Althæa Frutex*, which lasts till *September*.

The *Senna*'s blow twice a Year, viz. Spring and Autumn; and soon after them comes that beautiful Ever-green and flowering Shrub, the *Laurus-tinus*, which is not only a Grace to the Garden all the Winter, but in the Spring also, till the Beginning of *March*.

This being a sufficient Information of their several Seasons of Bloom, from which a Garden may be so planted, as to have one or other of the several Kinds always in Blossom throughout the whole Year; I shall, in the next Section, inform my Reader in what Manner they are to be disposed of, so as to receive a beautiful and grand Appearance, as well from those whose Growth is small and low, as from them of a large and higher Stature.

S E C T. XXI.

Of the Manner of Disposing and Planting Flowering Shrubs in the proper Parts of a Wilderness.

BEFORE we can come to the Planting of these beautiful Shrubs, we must consider the Nature of their Growth, in respect to Stature; and also the great Variety of their Colours, which ought to be so intermix'd, as for every Flower to be an Opposite or Ground to throw forward the Beauty of the other.

The

New Principles of Gardening.

The several Statures of these Plants may be reduc'd to three Sizes, *viz.* those of the tallest Growth; those of the middling Growth; and those of the lowest Growth.

First then; Those of the highest Growth are the double-blossom Cherry, Lilac, Guilder-Rose, *Spanish* Broom, Laburnum, Mirabalon Plumb, Tulip-tree, White Rose, and Almond.

Secondly; Those of a middling Growth are the Syringa, Damask Rose, Musk Rose, Spira Frutex, Arbor Judææ, Senna's, Althæa Frutex, Almond, being grafted a half Standard, as also the Mirabalon Plumb, and double-blossom Cherry.

Thirdly and *lastly*; The low Tribe are the Mezerion, the Furze, the Red Rose, the Cabbage Rose, the Province Rose, the Monthly Rose, the Mundi Rose, the Cinnamon Rose, the Yellow Rose, the Almond, being grafted low; as also the double-blossom Cherry, and Mirabalon Plumb, into which Class I introduce the Sweet-Brier.

Having thus divided them into their several Classes, we must next consider their several Colours, that we may thereby dispose of them in the best Manner, so as to cause the greatest Variety; and in order thereto, we'll begin with those of the first and largest Class.

First, then, of those the double-blossom Cherry, the White Lilac, the Guilder-Rose, the Mirabalon Plumb, and the White Rose, are all entirely White Blossoms. The other Kind of Lilac blue, the *Spanish* Broom, and Laburnum, yellow; the Tulip-tree, a mix'd Colour; and the Almond, a Peach Colour; so that the Colours produced by this Class are white, blue, yellow, a mix'd, and a Peach Colour. The several Sorts of White are five; of Yellow, two; of Blue; Mix'd; and Peach-Colour; of each, one only. Their several Colours being thus distinguish'd, we must now come to their Planting; wherein, first, observe, that these of the highest Rank must be planted backward from the View, to give Room for the others to come before them, in such Manner as to form, by the Difference of their several Growths, a perfect Slope of beautiful Flowers.

But to the Purpose: Let the first Plant be the double-blossom Cherry; the second, an Almond; the third, the Mirabalon Plumb; the fourth, a Blue Lilac; the fifth, a Guilder-Rose; the sixth, a *Spanish* Broom; the seventh, a White Lilac; the eighth, a Laburnum; the ninth, the White Rose; and the tenth, a Tulip-tree; and then beginning again with the double-blossom Cherry,
Almond,

Almond, Mirabalon Plumb, Blue Lilac, Guilder - Rose, *Spanish Broom*, &c. you will have placed them in such a Manner, as to be always beautiful. And altho' they are not all in Bloom at one Instant, yet one or other of them are: And even those as have no Blossoms, are extremely beautiful, in respect to the great Variety of Colours contain'd in their Leaves and Shoots.

The second Class, which is to be planted immediately before the first, must have its several Colours disposed of in the like Manner; wherein always observe, that you never place a Flower-Shrub that is white, yellow, &c. before a Plant of the first Class which is of the same Colour, or Kind, always regarding to follow the Steps of Nature as near as possible.

The third and lowermost Class being to be order'd in the same Manner, I need not say any more thereof; but that if Sweet-Brier was judiciously intermix'd in this Plantation, 'twould add a great Grace to the whole; and when the Standard-trees planted in the Hedge-lines of Walks, and Hedges also, which should never be suffer'd to grow very high, are fill'd with the several Kinds of Jessamines and Honey-suckles to run up and about them in a wild and rural Manner; the Whole must then make a most agreeable Composition, being also back'd with the great Varieties of Forest-trees, planted in the Midst of the Quarters.

Having thus laid down the most agreeable and pleasant Manner of disposing and planting of flowering Shrubs in a Wilderness, they being proper for such Plantations only; I shall, in the next Place, proceed to the Consideration of such odoriferous Flowers, whose Smell and Aspect are both curious and delightful.

S E C T. XXII.

Of odoriferous, or sweet-smelling Flowers, that are truly beautiful; their Use in Groves, Wilderness, Cabinets, open Plains, &c.

IN the twelve Months of the Year, there are eight which will produce Flowers, both grateful to the Eye, and pleasant to the Smell; as

In *January*, the several Kinds of *Polyanthos*.

In *February*, the *Polyanthos*, *Hyacinths*, and *Violets*.

In *March*, the *Polyanthos*, *Hyacinths*, *Stock July-Flowers*, and *Violets*, *Roses*, if against a South Wall.

In *April*, the *Hyacinths*, *Stock July-Flowers*, *Wall-Flowers*, *Auriculas*, *Junquils*, *Roses*, white *Narcissus*, and *Narcissus Polyanthos*.

In *May*, the *Wall-Flowers*, white *Narcissus*, *Lillies*, and double flower'd *Rocket*, *Roses*.

In *June*, the sweet *William*, *Lillies*, *Primrose Tree*, *Pinks*, *Roses*, and *Carnations*.

In *July*, the *Sweet William*, *Pinks*, *Carnation*, and *Tuberose*, and lastly,

In *August*, the *Pink*, and *July-Flowers*, commonly called *Carnations*.

The Odours of these Flowers being extreamly pleasant, are therefore to be planted in every Walk, and of each an equal Quantity; that thereby they may always be adorn'd with one or other according to their natural Succession.

S E C T. XXIII.

Of such Perennial, Bulbous-rooted, and Annual Flowers, as are truly beautiful and proper to adorn the most noble and rural Parts of a delightful Garden.

THESE Kinds of Flowers are only pleasant to the Eye, and may be so disposed of, as to adorn our Gardens every Month in the Year, viz.

In *January*, Snow-drop, Winter Aconite, Hepatica.

In *February*, Snow-drop, Crocus, Hepatica, Dazies.

In *March*, Crocus, Tulips.

In *April*, Tulips, Ranunculus, Anemonies.

In *May*, Tulips, Ranunculus, Lillies, Crown Imperials, Martagons, White Hellebore, Valerian, Monkshood, *African* Marigold, *French* Marigold, Double Poppies, Lupines, Scarlet Beans, Annual Stock, *Venus* Looking-glass, *Candy* Turf, Heart's Ease, Foxglove, Thrift.

In *June*, Lillies, Martagons, Foxglove, Valerian, Monkshood, Rosechampion, Batchelor's Buttons, Scarlet Lychnis, *African* and *French* Marigolds, Female Balsam, Larkspur, Double Poppies, Lupines, Annual Stock, *Venus* Looking-glass, *Candy* Turf, Heart's Ease.

In *July*, the Hollyhocks, Campanula's, Rosechampion, Batchelor's Buttons, Scarlet and White Lychnis, *African* and *French* Marigolds,

Marigolds, Capcicum Indicum, Marvel Peru, Female Balsam, Larkspur, Double Poppy, Scarlet Beans.

In *August*, Hollyhocks, Sun-flowers, Campanula's, Colchicum, Saffron Crocus, *African* and *French* Marigolds, Capcicum Indicum, Marvel Peru, Female Balsam, Larkspur, Double Poppies, Scarlet Beans.

In *September*, Anemonies, Colchicum, Saffron Crocus, *African* and *French* Marigolds, Capcicum Indicum, Marvel Peru, Female Balsam, Larkspur, Scarlet Beans.

In *October*, Starwort.

In *November*, none worth our Notice. And, lastly,

In *December*, the Black Hellebore.

I shall not, under a Pretence of Discovery, offer any Directions, that Flowers of the highest Growth, ought to possess the Middle of a Border; while those of the lowest Rank, the extream Parts; and them of a mean Growth, a Medium Place between the two Extreams: Because that every Gardiner is perfectly acquainted therewith; and 'tis what they have practised many Years before Mr. B--d--y, in his *New Improvements*, Part II. Page 135. gave himself the Trouble to publish the Disposition of Flowers in a Border, as a new Thing; which every one long before knew as well, as that seven Days make one Week, or twenty four Hours, a natural Day, &c.

But as these Flowers do not afford pleasant Smells, which those of the preceding Section do; 'tis therefore that I advise that those which are both grateful to the Smell and Eye, be the Inhabitants and only Possessors of Borders in general; and that the others which are contain'd in this Section, or the greatest Part thereof, be the Inhabitants of the inward Parts of an open Wilderness, &c. planted promiscuously in the Quarters thereof; but not in regular Lines, as has been the common Way: But, on the contrary; in little Thickets, or Clusters, seemingly without any other Order than what Nature directed, which, of all others, is the most beautiful.

N. B. That in the Disposition of these Clusters of Flowers, Care must be taken to mix the several Sorts in such a Manner, as for every Part to be equally adorn'd throughout the whole Year.

Perhaps

Perhaps it might be expected here, that I should demonstrate the Culture of Flowers in general; which I have here omitted, because I shall communicate that in another Volume; wherein I shall not only demonstrate the true and genuine Practice thereof, but also the several great Errors of many late Authors. Together with a Parallel of the Theoretical or Paper Botanist, with the Practical and Experienc'd Planter and Gardiner.

S E C T. XXIV:

Of the several Sorts of Flowers proper to adorn Chimneys, &c. during the Seasons of Spring, Summer, and Autumn.

HAVING, in the several Parts of this Work, demonstrated the true Practice of Ordering Fruit and Forest-Trees, Ever-Greens, and Flowering-Shrubs; with proper Directions for the several Sorts of Flowers to adorn a beautiful Garden, &c. I shall now lay down exact Rules for the Adorning the Chimneys of Halls, Chambers, &c. with such fragrant Flowers as are most suitable, viz. Truly Innocent, Beautiful, and Pleasant.

In Order to truly execute this Work in the best Manner, we must, first, be furnished with beautiful Flower-Pots of *Dutch Ware, China, &c.* wherein other Garden Flower-Pots must be placed, in which our Flowers are to grow.

New Principles of Gardening.

These being provided, we must, in the next Place, consider which of the several Sorts of Flowers are best for our Purpose, that are, as I said before, Truly Innocent, Beautiful, and Pleasant.

First then, to begin the Year, prepare some indifferent good Mold, with which fill as many Pots as are sufficient for your Chimney; and in the Middle of each Pot, plant a very large Root, or two, of Snow-Drops, of the double Kind, which environ with a Circle of the several Sorts of Crocus. This Work being done at the Time when Snow-Drops and Crocus have done Blowing, will, in the *January* following, make a glorious Appearance, and grace their Places of Abode, wherein they then are placed.

The Polyanthos presents its beautiful Flowers in *February*, as also the Hepatica, Hyacinths, and Violets; all which being planted in the like Manner, will succeed the preceding, and be very entertaining.

In *March*, we have Stock-July-Flowers, Hyacinths, and Violets; and if they are all planted together in one Pot, *viz.* the Stock-July-Flower in the Center, and the Hyacinths and Violets about it, they will make a very beautiful Appearance, and their sweet Odors be very agreeable.

The most beautiful Flowers of *April*, are Hyacinths, Stock-July-Flowers, Wall-Flowers, Tulips, Ranunculus, Anemonies, Jonquils, Narcissus, and Auricula's; which are thus to be disposed of, *viz.* In the Center of some Pots plant a Wall-Flower; in others, a Cluster of Tulips, or Jonquils, because they both grow indifferent high; and in Order to have them in the greatest Beauty, let every Tulip in each Pot be of a different Colour; and that they may make their best Appearance, place a handsome Flower-Stick in the Center of each Pot, with a gilt Head, to which tie up every Flower with Thread, &c. but in a free loose Manner, so as not to represent a stiff Bundle of Flowers, void of Freedom; in which the Beauty of every Thing consists. The Jonquils must be encompassed with a Circle of Ranunculus; the Tulips, with a Circle of Hyacinths; the Stock-July-Flowers, with Anemonies; and the Wall-Flowers with Narcissus.

N. B. If Care is taken to plant Tulip, Ranunculus, Anemones, Narcissus, Hyacinths, and Jonquil Roots, at different Seasons of the Year; they may be so order'd as for their Blooms to be divers Times repeated, *viz.* as soon as the first Bloom of Tulips, &c. is over, which were in the first Pots for *April*, they shall be succeeded with a second Bloom of the same Kind of Flowers, in other Pots, which shall endure the Month of *May*; and after them a third, for the Month of *June*; and so on.

The Manner of performing this, is by Planting their Roots in the Autumn, at several Times, *viz.* about six Weeks distant from the Time of the first Planting, to that of the second, and the same from the second to the third, &c.

In *May*, the White Lillies, and Crown Imperials are in their Beauty, which being planted as aforesaid, and environ'd with a Circle of Double-White Narcissus, are very beautiful. If the Roots of Lillies and Crown Imperials, are kept out of the Ground the whole Month of *February*, in a moist Place, where the Sun and Air cannot destroy them, and planted again in Flower-Pots at the Beginning of *March*, they will produce fine Flowers in *June*, which being environ'd with Pinks, yield a very graceful Aspect, and pleasant Odor.

In *June* and *July*, our best Ornaments are, the several Kinds of Pinks, Carnations, Amaranthus, Tricolor, and Coxcomb, Lychnis, Campanula's, Tuberoze, Larkspurs, Sweet-Williams, and Sweet-Basil; all which are best to be planted singly, being tied to a handsome Flower-Stick placed in the Center of each Pot.

In *August* and *September*, the Amaranthus's, Pinks, July-Flowers, Campanula's, Marvel Peru, Female Balsam, Capcicum Indicum, and Larkspurs: To which may be added, the White and Red Calvills, and other beautiful Sorts of Apples grafted on Paradise-Stocks; as also round-headed Plants of the large Sweet-Brier, White Jessamine, and Honey-Suckles, for the several Months of their Blooming.

In the Months of *October*, *November*, *December*, and indeed *January* also, a good Fire is the best Ornament for Chimneys; excepting such where little Use is made of the Rooms, whose best Furniture is small Hedge Laurus-Tinus Plants, planted in large Flower-Pots, as directed for Flowers, &c.

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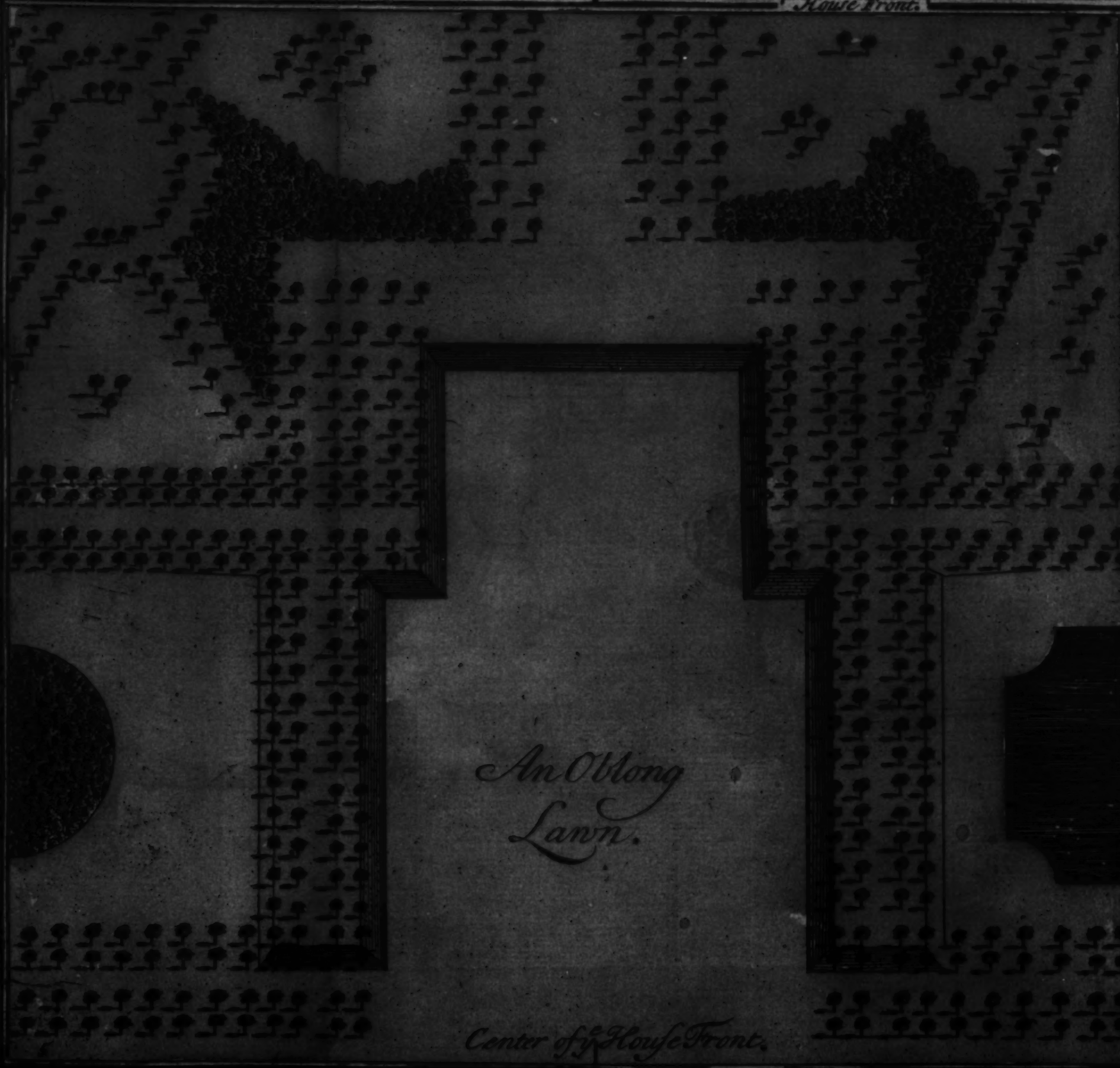
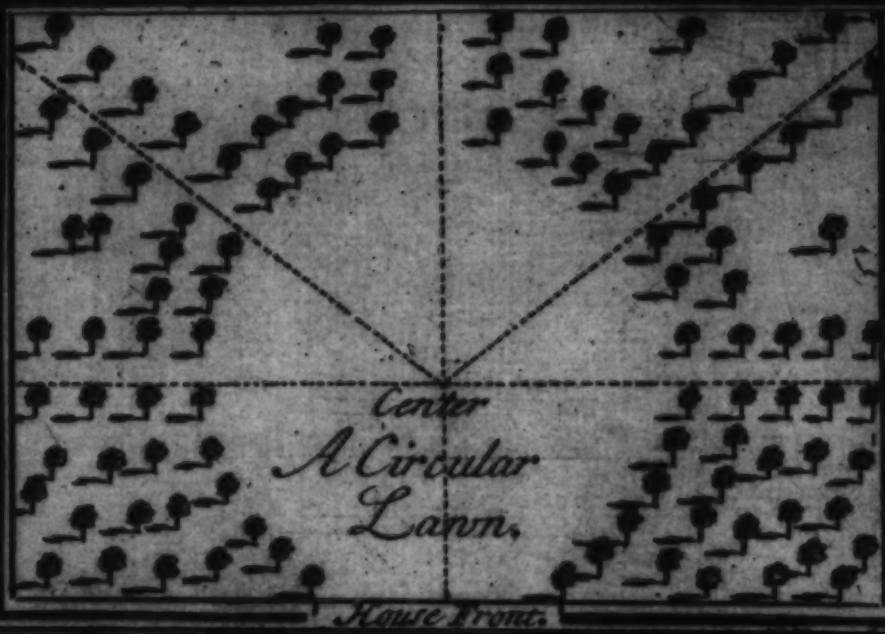
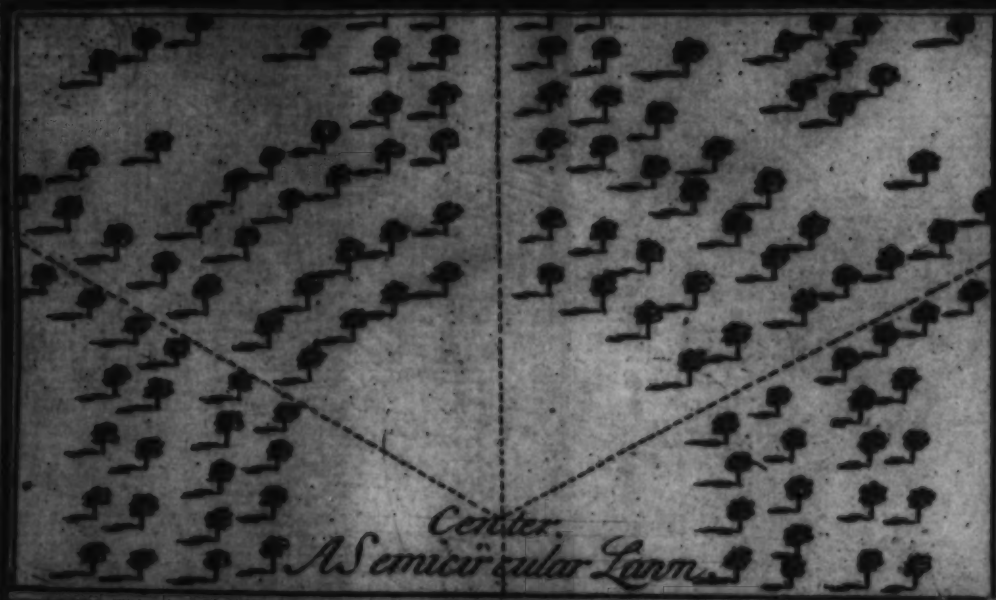
Having thus described the several Sorts of Flowers fit for this Purpose; I don't doubt, but that the diligent Gardiner will find a very great Satisfaction therein, who must always observe to remove away such as are fading, and introduce fresh ones in their stead, that thereby there may be a continued Series of Pleasure and Delight, free from a Mixture of disagreeable fading Objects.

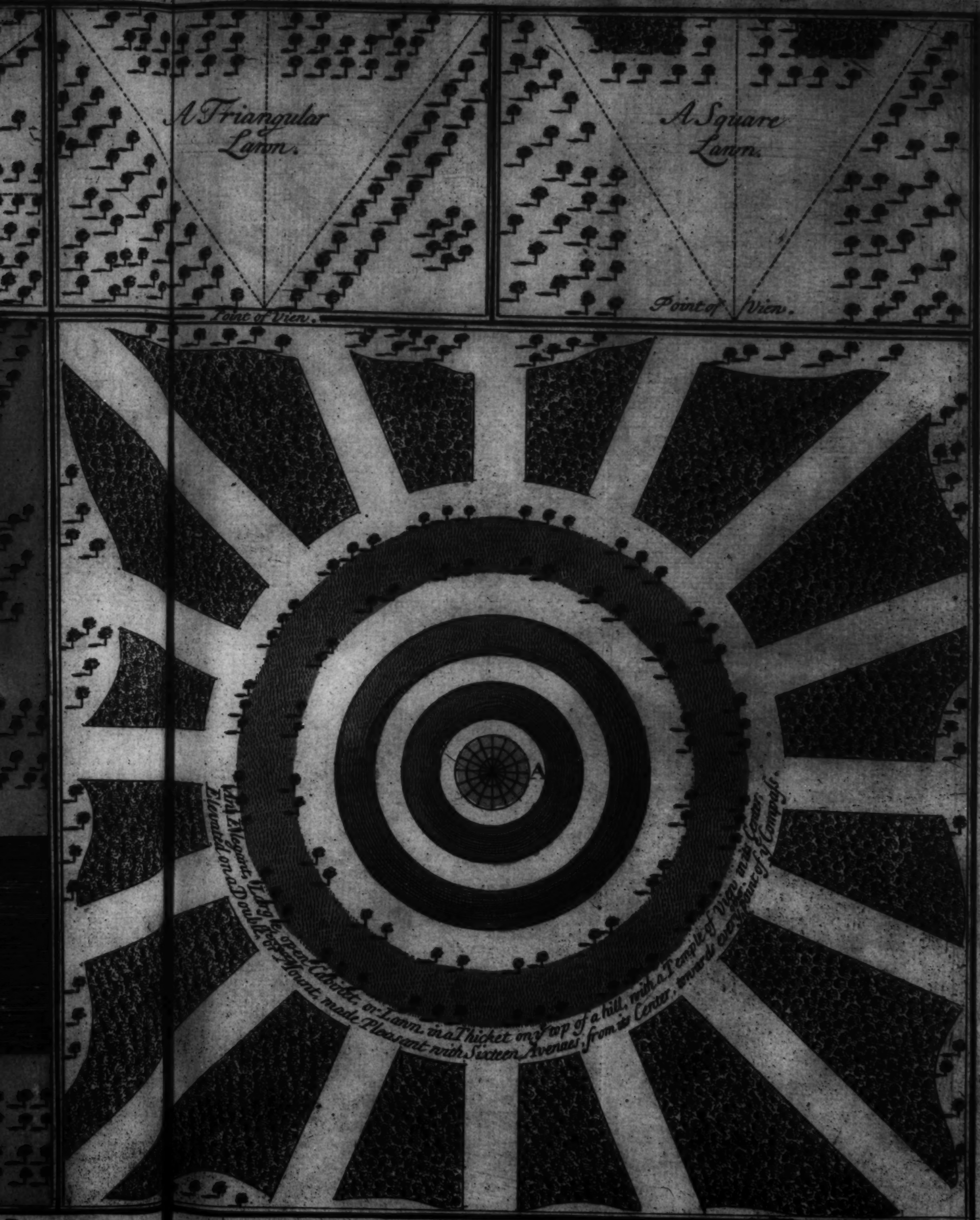


N E W













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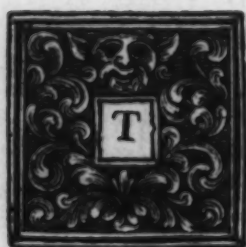


N E W
P R I N C I P L E S
O F
G A R D E N I N G.

P A R T VI.
*Of the Situation and Disposition of Gardens
in general.*

S E C T. I.

Of Situations.



THE most noble and pleasant Situation of all others, is that on the Top of a Hill, as *Richmond Hill* in *Surry*, *Harrow* in *Hertfordshire*, &c. where the Air is fine and clear, with noble Views.

The greatest Misfortunes attending these noble Situations, is their open Exposure to all Kinds of Weather, and the great Want of that most useful and pleasant Element, Good Water.

And,

And, on the contrary, where Situations are low, they often abound in too great a Plenty of Water, which, when stagnant, or of a slow Motion, is very unhealthy.

All Kinds of Fenny, Boggy, Marshy Lands, &c. whence Fogs and noisome Vapours arise, are always to be avoided.

Bogs, &c. on the North Side of a House or Garden, are unhealthy; for they being interposed between the Sun and the Bogs, &c. receive the noisome Vapours, as they are exhaled by the attractive Power of the Sun.

Situations on the South Side of a Hill are to be preferr'd before those at the Top; for altho' their Views are not so extensive, yet they are well guarded from the Northern Winds, and generally abounds with a much better Soil, and Plenty of Water.

The best and most healthy Soil to dwell on, is that whose Surface is a fine sandy Loam, with Brick-Earth underneath, and a Gravel at Bottom, wherein are generally good Springs for Household Affairs.

These are the most general Cautions to be observed, when Situations are to be chosen: But when they happen to be unalterable, every one must be contented; and therefore I shall conclude this Section with the Advice of RAPIN.

*If on thy Native Soil thou dost prepare
T' erect a Villa, you must place it there,
Where a free Prospect does itself extend
Into a Garden; whence the Sun may lend
His Influence from the East; his radiant Heat
Should on your House through various Windows beat:
But on that Side which chiefly open lies
To the North Wind, whence Storms and Show'rs arise,
There plant a Wood; for, without that Defence,
Nothing resists the Northern Violence,
While with destructive Blasts o'er Cliffs and Hills
Rough Boreas moves, and all with Murmurs fills;
The Oak with shaken Boughs on Mountains rends,
The Valleys roar, and great Olympus bends.
Trees therefore to the Winds you must expose,
Whose Branches best their pow'rful Rage oppose.*

S E C T. II.

Of the Disposition of Gardens in general.

ON this very Point depends the whole Beauty or Ruin of a Garden, and therefore every Gentleman should be very cautious therein; I must needs confess, that I have often been surprized to see that none of our late and present Authors did ever attempt to furnish Gentlemen with better Plans and Ideas thereof, than what has hitherto been practised.

The End and Design of a good Garden, is to be both profitable and delightful; wherein should be observed, that its Parts should be always presenting new Objects, which is a continual Entertainment to the Eye, and raises a Pleasure of Imagination.

If the Gentlemen of *England* had formerly been better advised in the laying out their Gardens, we might by this Time been at least equal (if not far superior) to any Abroad.

For as we abound in good Soil, fine Grass, and Gravel, which in many Places Abroad is not to be found, and the best of all Sorts of Trees; it therefore appears, that nothing has been wanting but a noble Idea of the Disposition of a Garden. I could instance divers Places in *England*, where Noblemen and Gentlemens Seats are very finely situated, but wretchedly executed, not only in respect to disproportion'd Walks, Trees planted in improper Soils, no Regard had to fine Views, &c. but with that abominable Mathematical Regularity and Stiffness, that nothing that's bad could equal them.

Now these unpleasant forbidding Sort of Gardens, owe their Deformity to the insipid Taste or Interest of some of our Theoretical Engineers, who, in their aspiring Garrets, cultivate all the several Species of Plants, as well as frame Designs for Situations they never saw: Or to some Nursery-Man, who, for his own Interest, advises the Gentleman to such Forms and Trees as will make the greatest Draught out of his Nursery,

without Regard to any Thing more: And oftentimes to a Coxcomb, who takes upon himself to be an excellent Draughtsman, as well as an incomparable Gardener; of which there has been, and are still, too many in *England*, which is witness'd by every unfortunate Garden wherein they come. Now as the Beauty of Gardens in general depends upon an elegant Disposition of all their Parts, which cannot be determined without a perfect Knowledge of its several Ascendings, Descendings, Views, &c. how is it possible that any Person can make a good Design for any Garden, whose Situation they never saw?

To draw a beautiful regular Draught, is not to the Purpose; for altho' it makes a handsome Figure on the Paper, yet it has a quite different Effect when executed on the Ground: Nor is there any Thing more ridiculous, and forbidding, than a Garden which is regular; which, instead of entertaining the Eye with fresh Objects, after you have seen a quarter Part, you only see the very same Part repeated again, without any Variety.

And what still greatly adds to this wretched Method, is, that to execute these stiff regular Designs, they destroy many a noble Oak, and in its Place plant, perhaps, a clumsy-bred Yew, Holley, &c. which, with me, is a Crime of so high a Nature, as not to be pardon'd.

There is nothing adds so much to the Pleasure of a Garden, as those great Beauties of Nature, *Hills* and *Valleys*, which, by our *regular Coxcombs*, have ever been destroyed, and at a very great Expence also in Levelling.

For, to their great Misfortune, they always deviate from Nature, instead of imitating it.

There are many other Absurdities I could mention, which those *wretched Creatures* have, and are daily guilty of: But as the preceding are sufficient to arm worthy Gentlemen against such Mortals, I shall at present forbear, and instead thereof, proceed to General Directions for laying out Gardens in a more grand and delightful Manner than has been done before. But first observe,

That the several Parts of a beautiful Rural Garden, are *Walks, Slopes, Borders, Open Plains, Plain Parterres, Avenues, Groves, Wildernesses, Labyrinths, Fruit-Gardens, Flower-Gardens, Vineyards, Hop-Gardens, Nurseries, Coppiced Quarters, Green*

Green Openings, like Meadows: Small Inclosures of Corn, Cones of *Ever-Greens*, of *Flowering-Shrubs*, of *Fruit-Trees*, of *Forest-Trees*, and mix'd together: *Mounts*, *Terraces*, *Winding Valleys*, *Dales*, *Purling Streams*, *Basons*, *Canals*, *Fountains*, *Cascades*, *Grotto's*, *Rocks*, *Ruins*, *Serpentine Meanders*, *Rude Coppies*, *Hay-Stacks*, *Wood-Piles*, *Rabbit and Hare-Warrens*, *Cold Baths*, *Aviaries*, *Cabinets*, *Statues*, *Obelisks*, *Manazeries*, *Pheasant and Partridge-Grounds*, *Orangeries*, *Melon-Grounds*, *Kitchen-Gardens*, *Physick or Herb-Garden*, *Orchard*, *Bowling-Green*, *Dials*, *Precipices*, *Amphitheatres*, &c.

General DIRECTIONS, &c.

I. THAT the grand Front of a Building lie open upon an elegant Lawn or Plain of Grass, adorn'd with beautiful Statues, (of which hereafter in their Place,) terminated on its Sides with open Groves.

II. That grand Avenues be planted from such large open Plains, with a Breadth proportionable to the Building, as well as to its Length of View.

III. That Views in Gardens be as extensive as possible.

IV. That such Walks, whose Views cannot be extended, terminate in Woods, Forests, mishapen Rocks, strange Precipices, Mountains, old Ruins, grand Buildings, &c.

V. That no regular *Ever-Greens*, &c. be planted in any Part of an open Plain or Parterre.

VI. That no Borders be made, or Scroll-Work cut, in any such Lawn or plain Parterre; for the Grandeur of those beautiful Carpets consists in their native Plainness.

VII. That all Gardens be grand, beautiful, and natural.

VIII. That shady Walks be planted from the End-Views of a House, and terminate in those open Groves that enclose the Sides of the plain Parterre, that thereby you may enter into immediate Shade, as soon as out of the House, without being heated by the scorching Rays of the Sun.

*Without a Shade no Beauty Gardens know;
And all the Country's but a naked Show.*

IX. That all the Trees of your shady Walks and Groves be planted with Sweet-Brier, White Jessamine, and Honey-Suckles, environ'd at Bottom with a small Circle of Dwarf-Stock, Candy-Turf, and Pinks.

X. That all those Parts which are out of View from the House, be form'd into Wildernesses, Labyrinths, &c.

XI. That Hills and Dales, of easy Ascents, be made by Art, where Nature has not perform'd that Work before.

XII. That Earths cast out of Foundations, &c. be carried to such Places for raising of Mounts, from which, fine Views may be seen.

XIII. That the Slopes of Mounts, &c. be laid with a moderate Reclination, and planted with all Sorts of Ever-Greens in a promiscuous Manner, so as to grow all in a Thicket; which has a prodigious fine Effect.

In this very Manner are planted two beautiful Mounts in the Gardens of the Honourable Sir *Fisher Tench* at *Low-Layton* in *Essex*.

XIV. That the Walks leading up the Slope of a Mount, have their Breadth contracted at the Top, full one half Part; and if that contracted Part be enclosed on the Sides with a Hedge whose Leaves are of a light Green, 'twill seemingly add a great Addition to the Length of the Walk, when view'd from the other End.

XV. That all Walks whose Lengths are short, and lead away from any Point of View, be made narrower at their further Ends than at the hither Part; for by the Inclination of their Sides, they appear to be of a much greater Length than they really are; and the further End of every long Walk, Avenue, &c. appears to be much narrower than that End where you stand.

And the Reason is, that notwithstanding the Sides of such Walks are parallel to each other, yet as the Breadth of the further End is seen under a lesser Angle, than the Breadth of that Part where you stand, it will therefore appear as if contracted, altho' the Sides are actually parallel; for equal Objects always appear under equal Angles, Q. E. D.

XVI. That the Walks of a Wilderness be never narrower than ten Feet, or wider than twenty five Feet.

XVII. That the Walks of a Wilderness be so plac'd, as to respect the best Views of the Country.

XVIII. That

XVIII. That the Intersections of Walks be adorn'd with Statues, large open Plains, Groves, Cones of Fruit, of Ever-Greens, of Flowering Shrubs, of Forest Trees, Basons, Fountains, Sun-Dials, and Obelisks.

*When in the Garden's Entrance you provide,
The Waters, there united, to divide :
First, in the Center a large Fountain make ;
Which from a narrow Pipe its Rise may take,
And to the Air those Waves, by which 'tis fed,
Remit agen : About it raise a Bed
Of Moss, or Grass ; but if you think this base,
With well-wrought Marble circle in the Place.
Statues of various Shapes may be dispos'd
About the Tube ; sometimes it is inclos'd
By dubious Scylla, or with Sea-Calves grac'd,
Or by a Brazen Triton 'tis embrac'd.
A Triton thus at Luxembourg presides,
And from the Dolphin which he proudly rides,
Spouts out the Streams : This place, though beautify'd,
With Marble round, though with Arcueil supply'd,
Yet to St. Cloud must yield, in this out-shin'd,
That there the Hostel D' Orleans we find ;
The little Town, the Groves before scarce known,
Enabled thus, will now give Place, to none.
So great an Owner any Seat improves ;
One whom the King, and all the People loves.
This Garden, as a Pattern, may be shown
To those who would add Beauty to their own.
All other Fountains this so far transcends,
That none in France besides with it contends ;
None so much Plenty yields, none flows so high ;
A Guiph, i'th' Middle of the Pond does lie,
In which a swollen Tunnel opens wide ;
Through hissing Chinks the Waters freely slide ;
And in their Passage in a Whirlwind move,
With rapid Force into the Air above ;
As if a watry Dart were upward thrown.
But when these haughty Waves do once fall down,
Resounding*

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*Resounding loud, they on each other beat,
And with a dewy Shower the Basen wet.*

XIX. That in those serpentine Meanders, be placed at proper Distances, large Openings, which you surprizingly come to; and in the first are entertain'd with a pretty Fruit-Garden, or Paradise-Stocks, with a curious Fountain; from which you are insensibly led through the pleasant Meanders of a shady delightful Plantation; first, into an open Plain environ'd with lofty Pines, in whose Center is a pleasant Fountain, adorn'd with *Neptune* and his Tritons, &c. secondly, into a Flower-Garden, enrich'd with the most fragrant Flowers and beautiful Statues; and from thence through small Inclosures of Corn, open Plains, or small Meadows, Hop-Gardens, Orangeries, Melon-Grounds, Vineyards, Orchards, Nurseries, Physick-Gardens, Warrens, Paddocks of Deer, Sheep, Cows, &c. with the rural Enrichments of Hay-Stacks, Wood-Piles, &c.

*Which endless are, with no fix'd Limits bound,
But fill in various Forms the spacious Round.
And endless Walks the pleas'd Spectator views,
At ev'ry Turn the verdant Scene renews.*

These agreeable surprizing Entertainments in the pleasant Passage thro' a Wilderness, must, without doubt, create new Pleasures at every Turn: And more especially when the Whole is so happily situated, as to be bless'd with small Rivulets and purling Streams of clear Water, which generally admit of fine Canals, Fountains, Cascades, &c. which are the very Life of a delightful rural Garden.

*Of pleasant Floods, and Streams, my Muse now sings,
Of chrystal Lakes, Grotts, and transparent Springs;
By these a Garden is more charming made,
They chiefly beautify the rural Shade.
You who employ your Time to cultivate
Your Gardens, and to make their Glory great;
Among your Groves and Flow'rs, let Water flow;
Water, the Soul of Groves and Flow'rs too.*

Water,

*Water, 'tis true, through Pipes may be convey'd
From hollow Pits; so Fountains oft are made,
By Art, when Nature aids not our Designs,
The pensile Machine to a Tunnel joins;
Which by the Motion of a Siphon straight,
The Element attracts, though by its Weight
It be depress'd; and thus, O Sein, thy Waves
Beneath Pontneuf, the tall Samaritan Laves,
And pours them out above: But let all those
Who want these Helps, to him address their Vows,
Whose Arm, whose Voice alone can Water draw,
And make obdurate Rocks to Rivers thaw.*

And to add to the Pleasure of these delightful Meanders, I advise that the Hedge-Rows of the Walks be intermix'd with Cherries, Plumbs, Apples, Pears, Bruxel Apricots, Figs, Gooseberries, Currants, Raspberries, &c. and the Borders planted with Strawberries, Violets, &c.

The most beautiful Forest-Trees for Hedges, are the *English Elm*, the *Dutch Elm*, the *Lime-Tree*, and *Hornbeam*: And altho' I have advis'd the Mixing of these Hedges of Forest-Trees with the aforesaid Fruits, yet you must not forget a Place for those pleasant and delightful Flowering-Shrubs, the *White Jessamine*, *Honey-Suckle*, and *Sweet-Brier*.

XX. Observe, at proper Distances, to place publick and private Cabinets, which should (always) be encompass'd with a Hedge of Ever-Greens, and Flowering-Shrubs next behind them, before the Forest-Trees that are Standards.

XXI. Such Walks as must terminate within the Garden, are best finish'd with Mounts, Aviaries, Grotto's, Cascades, Rocks, Ruins, Niches, or Amphitheatres of Ever-Greens, variously mix'd, with circular Hedges ascending behind one another, which renders a very graceful Appearance.

*Besides the Fountains which to Art we owe,
That Falls of Water also can bestow,
Such, as on rugged Jura we descry,
On Rocks; and on the Alps which touch the Sky
Where from the steep Precipices it descends,
And where America itself extends*

To

New Principles of Gardening.

*To the rude North ; expos'd to Eurus' Blast :
 On Canada's bold Shore the Ocean past,
 There among Groves of Fir-Trees, ever-green,
 Streams falling headlong from the Cliffs are seen ;
 The Cataracts resound along the Shore ;
 Struck with the Noise, the Woods and Valleys roar.
 These Wonders which by Nature here are shown,
 Ruellian Naiads have by Art out-done.
 Into the Air a Rock with lofty Head
 Aspires, the hasty Waters thence proceed.
 Dash'd against rugged Places they descend,
 And broken thus, themselves in Foam they spend.
 The Sound, as when some Torrent uncontroll'd,
 With mighty Force is from a Mountain roll'd,
 The Earth, with horrid Noise, affrighted groans,
 Flints which lie underneath, and moisten'd Stones,
 Are beat with Waves ; th' untrodden Paths resound,
 And Groves and Woods do loudly eccho round.
 Nor should it less deserve of our Esteem,
 When from an even Bed diffus'd, the Stream
 Runs down a polish'd Rock ; and as it flows,
 Like Linen in the Air expanded shows.
 The Textile Flood a slender Current holds,
 And in a wavy Veil the Place infolds.*

XXII. Obelisks of Trellip-Work cover'd with Passion-Flowers, Grapes, Honey-Suckles, and White Jessamine, are beautiful Ornaments in the Center of an open Plain, Flower-Garden, &c.

XXIII. In the Planting of a Wilderness, be careful of making an equal Disposition of the several Kinds of Trees, and that you mix therewith the several Sorts of Ever-Greens ; for they not only add a very great Beauty thereunto, by their different Leaves and Colours, in the Summer ; but are a great Grace to a Garden in the Winter, when others have stood the Strip of their Leaves.

XXIV. Canals, Fish-Ponds, &c. are most beautiful when environ'd with a Walk of stately Pines, and terminate at each End with a fine Grove of Forest-Trees, or Ever-Greens.

Or,

Or, if an extensive Canal terminate at one End in an elegant Piece of Architecture, with a Grove on each Side thereof, and the other End in a Wood, Grove, &c. 'twill have a noble and grand Aspect.

XXV. Groves of Standard Ever-Greens, as Yew, Holly, Box, and Bay-Trees, are very pleasant, especially when a delightful Fountain is plac'd in their Center.

XXVI. All Grass-Walks should be laid with the same Curvature as Gravel-Walks, and particularly in wet and cold Lands; for, by their being made flat or level from Side to Side, they soon settle into Holes in the Middle, by often walking on, and therein retain Wet, &c. which a circular surfaced Walk resists. The Proportion for the Heights of the Crown, or middle Part of any Grass or Gravel-Walk, is as five is to one, that is, if the Walk be five Foot in Breadth, the Height of the Middle, above the Level of the Sides, must be one Inch; if ten Foot, two Inches; fifteen Foot, three Inches, &c.

XXVII. The Proportion that the Base of a Slope ought to have to its Perpendicular, is as three to one, that is, if the perpendicular Height be ten Feet, its Base must be thirty Feet; and the like of all others.

XXVIII. Distant Hills in Parks, &c. are beautiful Objects, when planted with little Woods; as also are Valleys, when intermix'd with Water, and large Plains; and a rude Coppice in the Middle of a fine Meadow, is a delightful Object.

XXIX. Little Walks by purling Streams in Meadows, and through Corn-Fields, Thickets, &c. are delightful Entertainments.

XXX. Open Lawns should be always in Proportion to the Grandeur of the Building; and the Breadth of Avenues to the Fronts of Edifices, and their own Length also.

The entire Breadth of every Avenue should be divided into five equal Parts: Of which, the Middle, or grand Walk, must be three Fifths; and the Side, or Counter-Walks on each Side one Fifth each. But let the Length of Avenues fall as it will, you must always observe, that the grand Walk be never narrower than the Front of the Building.

The most beautiful and grand Figures for fine large open Lawns, are the Triangle Semicircle, Geometrical Square, Circle or Elipsis, as the Figures A, B, C, D, E.

D d

XXXI.

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XXXI. The Circle, Elipsis, Octagon, and mix'd Figures composed of Geometrical Squares, Parallelograms, and Arches of Circles, makes very beautiful Figures for Water, as may be seen in the several Parts of the Designs at the End hereof. But of them all, the Circle is the most grand and beautiful.

*Nor will the plenteous Waters please you less,
When in the Ground a Circle they possess :
Which Figure with a Garden best agrees ;
If on the grassy Bank a Grove of Trees,
With shining Scenes, and Branches hanging down,
The Seats of Stone, and verdant Shores does crown.
But whether they stand still, or swiftly glide,
With their broad Leaves let Woods the Rivers hide,
Bestowing on each Place their cooling Shade ;
For Springs by that alone are pleasant made.*

XXXII. In the Planting of Groves, you must observe a regular Irregularity ; not planting them according to the common Method like an Orchard, with their Trees in straight Lines ranging every Way, but in a rural Manner, as if they had receiv'd their Situation from Nature itself.

XXXIII. Plant in and about your several Groves, and other Parts of your Garden, good Store of Black-Cherry and other Trees that produce Food for Birds, which will not a little add to the Pleasure thereof.

*----- We wandring thro' a Grove,
Trees green beneath us, and all Shade above,
Mild as our Friendship, springing as our Love ;
Hundred of chearful Birds fill ev'ry Tree,
And sing their joyful Songs of Liberty.*

XXXIV. Where Water is easy to be had, always introduce a Bafin or Fountain in every Flower and Fruit-Garden, Grove, and other pleasing Ornaments, in the several private Parts of your rural Garden.

*Ye Springs and Fountains in the Woods resound,
And with your Noise the silent Groves confound.*

XXXV.

XXXV. The several Kinds of Forest-Trees make beautiful Groves, as also doth many Ever-Greens, or both mix'd together; but none more beautiful than that noble Tree the Pine.

*'Twas in a Grove of pleasant Pines he stray'd;
The Winds within the quiv'ring Branches play'd,
And dancing Trees, a mournful Musick made.
The Place it self was suiting to his Care,
Uncouth and savage as the cruel Fair:
He wandred on, unknowing where he went,
Lost in the Wood, and all on Love intent.*

}

XXXVI. In the Disposition of the several Parts of Gardens in general, always observe that a perfect Shade be continued throughout, in such a Manner as to pass from one Quarter to another, &c. without being obliged at any Time to pass thro' the scorching Rays of the Sun.

*O blest Abodes! O dear delicious Shade!
Had I for you, or you for me been made,
How gladly would I fix my wandring Course
With you? How willing bear the World's Divorce?
And only blest in yours, her Charms forget,
Renounce her Pleasures, and to yours retreat.*

XXXVII. There is nothing adds so much to the Beauty and Grandeur of Gardens, as fine Statues; and nothing more disagreeable, than when wrongly plac'd; as Neptune on a Terrace-Walk, Mount, &c. or Pan, the God of Sheep, in a large Basin, Canal, or Fountain. But to prevent such Absurdities, take the following Directions.

For open Lawns and large Centers:

Mars, God of Battle, with the Goddess Fame; Jupiter, God of Thunder, with Venus, the Goddess of Love and Beauty; and the Graces Aglaio, Thalia, and Euphrosyne; Apollo, God of Wisdom, with the nine Muses, Cleio, Melpomene, Thalia, Euterpe, Terpsicore, Erato, Calliope Urania, and Polymnia;

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Minerva and *Pallas*, Goddesses of Wisdom, with the seven Liberal Sciences; the three Destinies, *Clotho*, *Lachesis*, and *Atropos*; *Demegorgon* and *Tellus*, Gods of the Earth; *Priapus*, the Garden-God; *Bellona*, Goddess of War; *Pytho*, Goddess of Eloquence; *Vesta*, Goddess of Chastity; *Voluptia*, Goddess of Pleasure; *Atlas*, King of *Mauritania*, a famous Astronomer; *Tysias*, the Inventer of Rhetorick; and *Hercules*, God of Labour.

For Woods and Groves:

Ceres and *Flora*; *Sylvanus*, God, and *Ferona*, Goddess of the Woods; *Actæon*, a Hunter, whom *Diana* turn'd into a Hart, and was devoured by his own Dogs; *Eccho*, a Virgin rejected of her Lover, pined away in the Woods for Sorrow, where her Voice still remains, answering the Outcries of every Complaint, &c. *Philomela*, a young Maid ravish'd by *Tereus*, who afterwards imprison'd her, and cut out her Tongue; which cruel Action *Progne*, Sister to *Philomela* and Wife to *Tereus*, reveng'd, by killing her own Son *Itis*, whom she had by *Tereus*, and mincing his Flesh, dress'd up a Dish thereof, which she gave her Husband *Tereus* to eat, (unknown to him,) instead of Meat. *Philomela* was afterwards transformed into a Nightingale, and *Itis* into a Pheasant; and lastly, *Nuppæ* Fairies of the Woods.

For Canals, Basons, and Fish-Ponds:

Neptune, *Palemon*, *Paniscus*, and *Oceanus*, Gods, and *Dione*, *Melicerta*, *Thetis*, and *Marica*, Goddesses of the Sea; *Salacia* Goddess of Water; *Naiades* Fairies of the Water; and the Syrens *Parthenope*, *Lygia*, and *Leusia*.

Niches to be adorn'd with *Dii minores*.

For Fruit-Gardens and Orchards:

Pomona Goddess of Fruit, and the three *Hesperides*, *Eagle*, *Aretusa*, and *Hisperetusa*, who were three Sisters that had an Orchard of golden Apples kept by a Dragon, which *Hercules* slew when he took them away.

For

For Flower-Gardens :

Flora and *Cloris*, Goddesses of Flowers; and also *Venus*, *Diana*, *Daphne*, and *Runcina* the Goddesses of Weeding.

For the Vineyard :

Bacchus God of Wine.

For Mounts, high Terrace-Walks, &c.

Æolus, God of the Winds and *Orcedes* Fairies of the Mountains.

For Valleys :

The Goddess *Vallonta*.

For private Cabinets in a Wilderness or Grove :

Harpocrates God, and *Agerona* Goddesses of Silence, *Mercury* God of Eloquence.

For small Paddocks of Sheep, &c. in a Wilderness :

Morpheus and *Pan* Gods of Sheep; *Pates* the Shepherds Goddesses; *Bubona* the Goddesses of Oxen; and *Nillo* a famous Glutton, who used himself to carry a Calf every Morning, until it became a large Bull, at which Time he flew it with his Fist, and eat him all in one Day.

For small Enclosures of Wheat, Barley, &c. in a Wilderness :

Robigus a God who preserved Corn from being blasted; *Segesta* a Goddesses of the Corn, and *Tutelina* a Goddess, who had the Tuition of Corn in the Fields.

For

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For Ambuscadoes near Rivers, Paddocks, or Meadows:

For those near a Canal or River, *Ulysses*, who first invented the Shooting of Birds; and for those near a Paddock, wherein Sheep, &c. are kept, *Cacus* slaying by *Hercules*. For *Cacus* being a Shepherd, and a notorious Thief of great Strength and Policy, stole several Sheep and Oxen from *Hercules*, who perceiving his Loss, lay in Ambush, and took *Cacus* in the Fact, for which, with his Club, he knock'd out his Brains.

Lastly, for Places of Banquetting:

The God *Comus*.

Where Bees are kept in Hives:

The God *Aristeus*.

These general Directions, with the preceding deliver'd in the Cultivation of the several Kinds of Fruit and Forest-Trees, Ever-Greens, and Flowering-Shrubs, join'd with the most useful Observations on the several Designs hereunto annex'd, is fully sufficient for any Person whatsoever, to design, lay out, and plant Gardens in general, in a more grand and beautiful Manner than has been done before. I therefore shall now conclude for the present, in the Words of *Rapin* on the Happiness of a rural Seat;

*And blest is he, who tir'd with his Affairs,
Far from all Noise, all vain Applause, prepares
To go, and underneath some silent Shade,
Which neither Cares nor anxious Thoughts invade,
Does for a while, himself alone possess,
Changing the Town for rural Happiness.
He, when the Sun's hot Steeds to th' Ocean haste,
E'er sable Night the World has overcast,
May from the Hills, the Fields below descry,
At once diverting both his Mind and Eye;*

Or,

Or if he please, into the Woods may stray,
 Listen to the Birds, which sing at Break of Day :
 Or, when the Cattle come from Pasture, hear
 The bellowing Ox the hollow Valleys tear
 With his hoarse Voice. Sometimes his Flowers invite :
 The Fountains too are worthy of his Sight.
 To ev'ry Part he may his Care extend,
 And these Delights all others so transcend,
 That we the City now no more respect,
 Or the vain Honours of the Court affect ;
 But to cool Streams and aged Groves retire,
 And th'unmix'd Pleasures of the Fields desire,
 Making our Beds upon the grassy Bank,
 For which no Art but Nature we must thank.
 No Marble Pillars, no proud Pavements there,
 No Gall'ries, or fretted Roofs appear.
 The modest Rooms to India nothing owe ;
 Nor Gold, nor Ivory, nor Arras know :
 Thus liv'd our Ancestors when Saturn reign'd,
 While the first Oracles in Oaks remain'd.
 A harmless Course of Life they did pursue,
 And nought beyond their Hills, their Rivers knew.

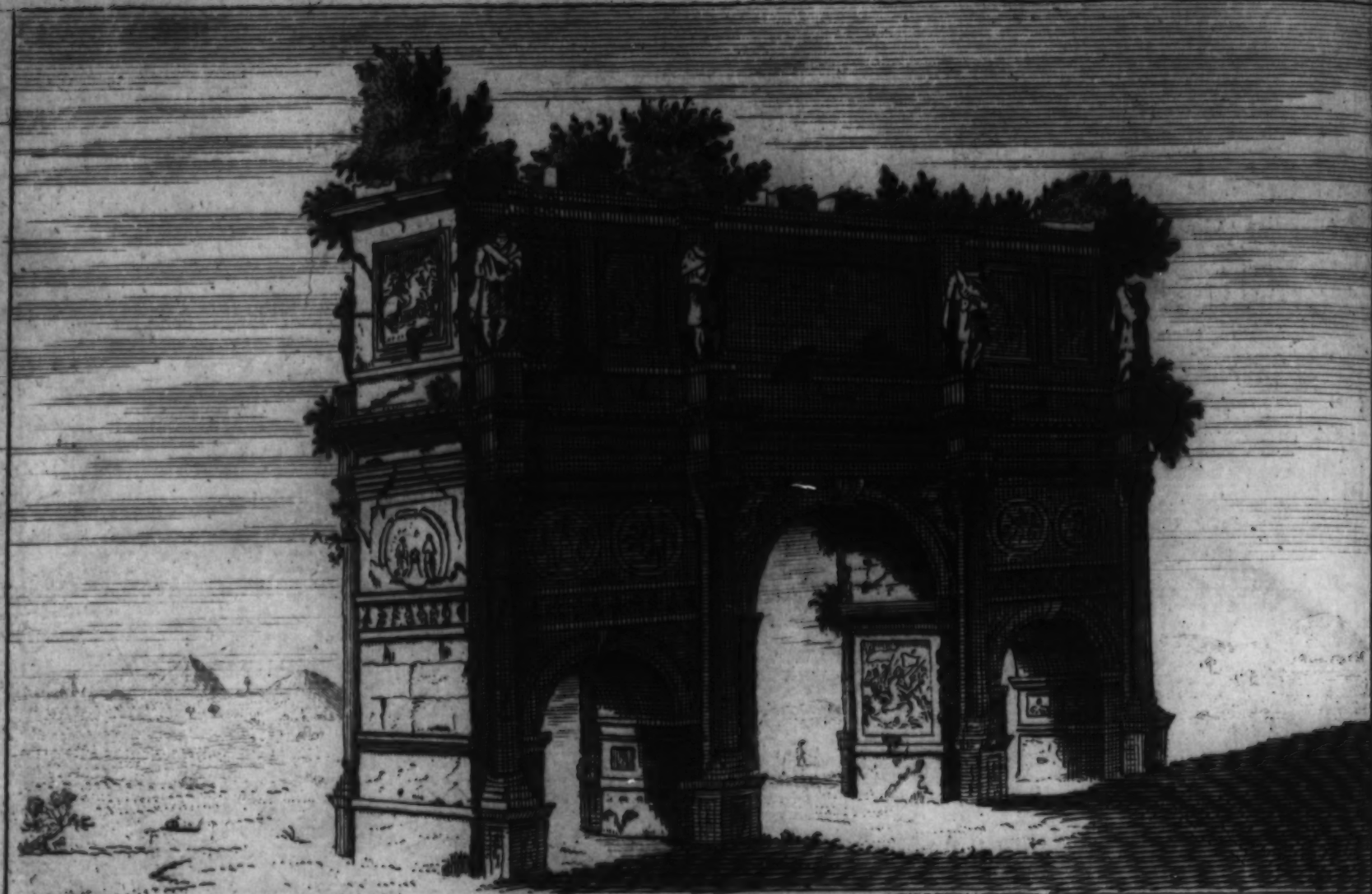
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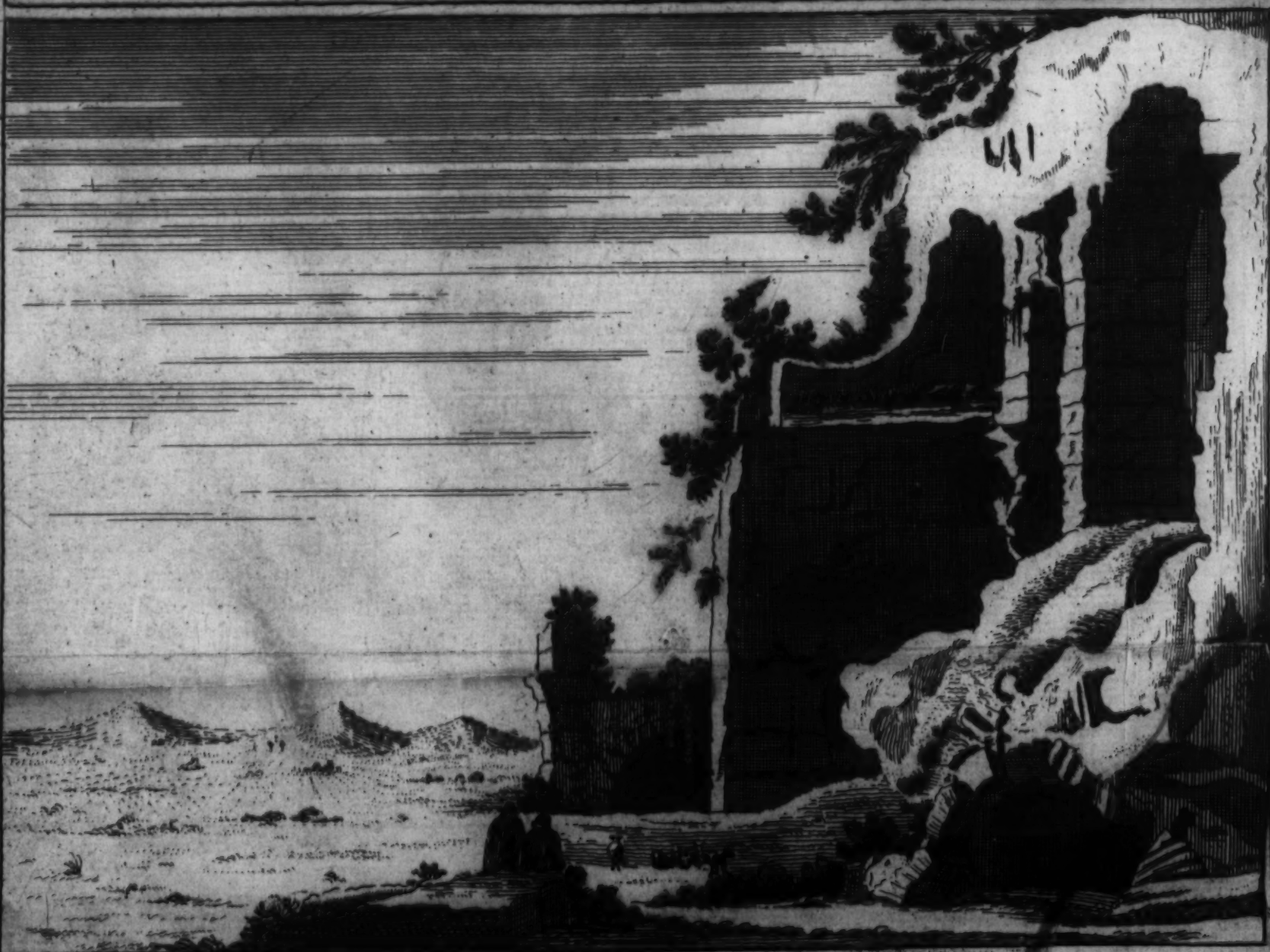


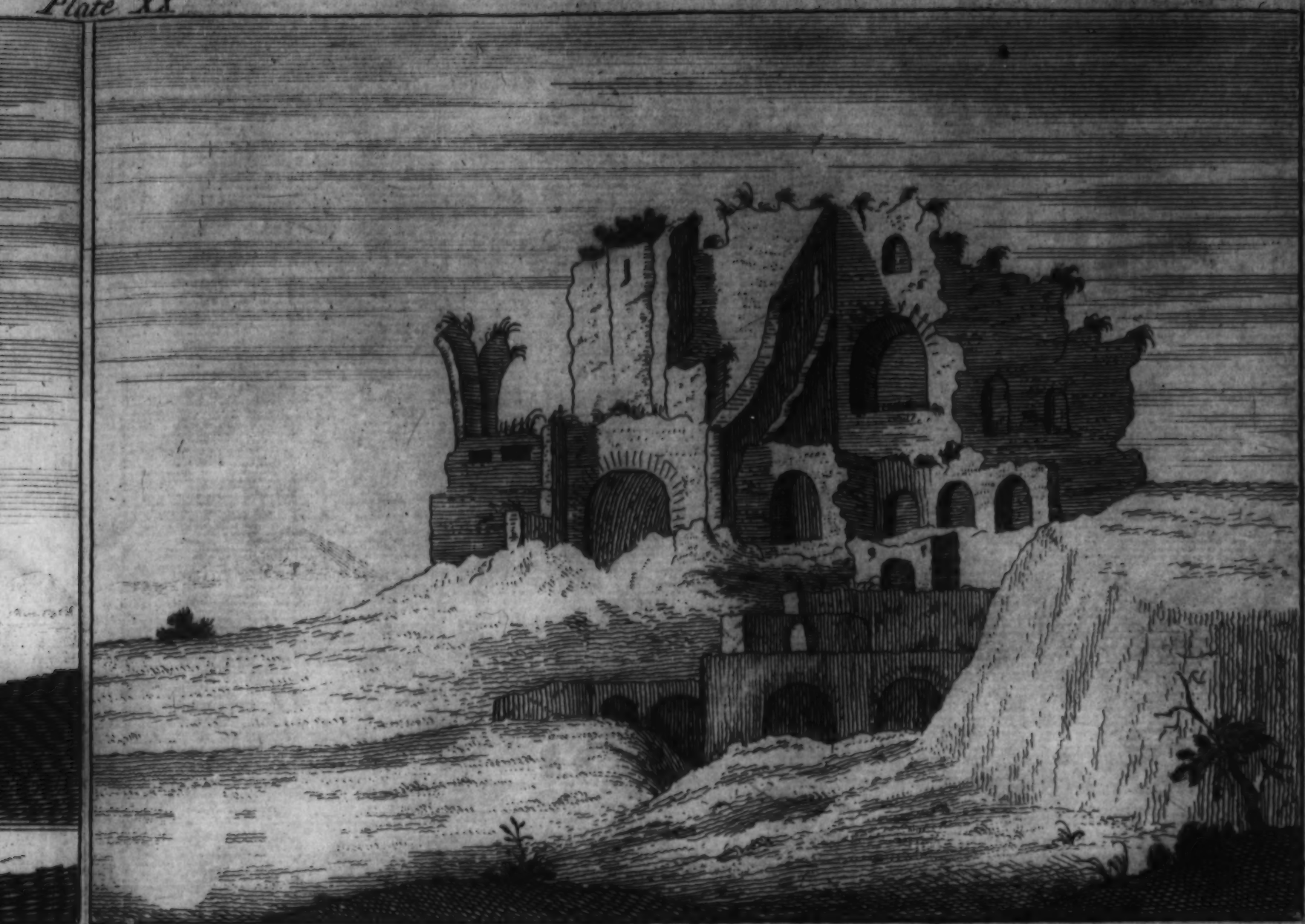
Views of Ruins after the old Roman manner for the Terrena





*Views of Ruins, after the old Roman manner, for the
Termination of Walks, Avenues &c.*





Dr. Lockley, Sculp.





Plan for the termination of Walks avenues &c.



*Shady walks with Temples of
Fetich work after the grand
manner at Versailles*



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OF
GARDENING.

PART VII.
Of the KITCHEN GARDEN.



INTRODUCTION.



AMONGST the several parts of Gardening, which in general are delightful and advantageous, none is more necessary to be well understood, than that of the right Ordering and Cultivation of Sallets, throughout the several Seasons of the Year. And in Consideration, that a Work of this kind might be very useful to every one, if communicated to the Publick in a manner absolutely practicable, and free from the several *Chimera's*, and Imaginations so much used by our late theoretical Writers on the several parts of Gardening,

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which greatly deceives every one who follows their Directions; I shall therefore demonstrate the true and genuine Cultivations of those wholesome *Vegetables*, in a more concise, familiar and authentick manner, than has been done before.

CHAP. I.

Of the right Ordering and Cultivation of the several Sallet Herbs which are in Season, during the Months of January, February and March.

SECT. I.

Of Alexanders.

1. *Its Names.*

ALEXANDERS is called in Latin *Hipposelinum*, in Greek *ἵπποσέλινον* or great Parsley of Gaza *Equapium*. 'Tis also called *Olusatrum*, or the black Pot-Herb, and by many *Sylvestre* or wild Parsley. The Germans call it *Grosz Epffich*, The French *Alexandre*, and the English *Alexanders*.

2. *Its Description.*

The Form of the Leaves of this Vegetable is like unto those of Smallage, but something larger, being smooth and of a very deep green. When it's suffered to grow up to Seed, it will rise about eighteen Inches high. Its Blossoms are white, and the Seed is black when ripe in *August*, and very bitter, but of an aromatic Smell. The Root is of a black Colour without, but white within, and may be eaten.

3. *Its Temperature.*

The Seed is hot in the second Degree, and almost dry in the third. Its Roots are of a moderate heat, as are also the Leaves, Stalks, &c.

4. *The*

4. *The Medicinal Virtues.*

A Decoction of the Root made with Wine, will expel Wind, provoke Urine, and is excellent against the Strangury, as also are the Seeds.

5. *The Parts for use in Sallets are,*

(1.) The fresh Sprouts, Tops and Stalk, while tender, being blanch'd. (2.) The Root being peeled, and eaten raw or boiled in Soup, is very good for the Stomach, and its tender Shoots make an excellent Pickle.

6. *Its Proportion or Quantity in a Sallet is discretionally, and is eaten with Oyl, Pepper, Salt, &c.*

7. *Its Cultivation.*

The Seed may be sown as soon as ripe in *August*, or in the *March* following. It delights in good mellow Land, being sown thin; its Seed is not produced under two Years growth, after being gathered and sown in *August*, in small Borders of three Foot in breadth, &c.

S E C T. II.

Of Asparagus.

1. *Its Names and Kinds.*

ASPARAGUS is called in *Latin* (1.) *Asparagus Sativus*, Garden Asparagus. (2.) *Asparagus Palustris*, Marsh Sperage. (3.) *Asparagus Petraeus*, Stone or Mountain Sperage. (4.) *Asparagus Silvestris*, wild Sperage. (5.) *Asparagus Silvestris Spinofus Clusii*, wild thorny Sperage; but of all these kinds we cultivate none but the first, which is called in *Greek* *ἀσπάραγος*, in *High Dutch* *Spargen*, in *Low Dutch* *Asperges* and *Coralcrunt* or *Herba Coralli*, Coralwort in respect to its red Berries; in *Spanish* *Asparagos*, in *Italian* *Asparago*, in *French* *Asperges*, and vulgarly in *English* Sparrow-grass.

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2. *Its Description.*

The tender Shoots, which naturally begin to come forth about the End of *March*, are soft and brittle, and of divers Sizes, some being very small, as the Size of a Goose-quill, and others as large as a Man's Thumb, and oftentimes larger, being in Taste when raw like unto green Beans. The Top or Bud is of the form of a Sparrow's Bill, and from thence vulgarly called Sparrow-grass. When the young Shoots are about eight Inches in height (or thereabouts) they open their soft scalic Tops or Buds, and break out into divers Branches, adorned with small hairy-like Leaves, mixed with yellowish Blossoms, which afterwards produce Berries wherein the Seed is inclosed. These Berries are first of a green Colour, and afterwards become red, of the Size of a common Pea; and make a very beautiful Appearance, being mixt amongst their beautiful verdant Leaves. The Roots are of a very soft and spongy Nature, and when planted in rich Land, as I shall in its Place direct, prosper well, and continue for many Years.

3. *Its Temperature.*

Is temperately hot and moist.

4. *The Medicinal Virtues.*

The young Shoots being eaten, as hereafter directed, are very nourishing, and is a Cordial Diuretic, good for the Kidneys and Bladder, loosens the Belly, and very much helps Digestion.

5. *The Parts for use are,*

The tender Shoots when grown about three Inches in height, being carefully cut with a Knife, whose Edge must be ground very thin, and afterwards hacked with the Edge of another Knife, so as to be rough like the Teeth of a small Saw, or otherwise fil'd, as the Teeth of a fine Saw. The Knife being thus prepared, place the end of the side of the Blade close down by the side of the Asparagus, cutting it off about three Inches within the Ground. But before you put down your Knife, as aforesaid, open the Ground with the point of your Knife, to see if there are not other young Buds coming through the Surface, which care must be taken of to preserve; and when

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when you are cutting the Asparagus off, as aforesaid, be careful that you don't turn your Knife about, which oftentimes destroys three or four other Buds as would have succeeded the first. Also be careful that you don't jab, or hastily thrust down your Knife into the Head of the Roots from which the young Shoots arise; for by such doings I have known many fine Pieces of Asparagus killed. But to prevent such Misfortunes, care must be taken to plant the Roots a sufficient Depth, as I shall in its Cultivation direct.

6. The Proportion or Quantity to be eaten,

Is arbitrary, its white Parts being scraped, and bound up in small Bundles and boiled, is eaten with melted Butter, Bread toasted, &c. alone, or with Chickens, Lamb, &c. well known to most People.

7. Its Cultivation.

The proper Soil wherein Asparagus naturally delights, is a rich sandy Loam, and is thus cultivated.

(1.) Having made choice of such large and sound Buds of the best Kind (which first appear in *April*) as may be thought necessary; the *Michaelmas* following, when their Haulm is dead, their Seed will be fit to gather, at which Time observe that you are not disappointed therein by Birds, which will destroy the Seed, if Care is not taken to preserve it.

(2.) Your Seed, being arrived to its full Maturity of Ripeness, gather all those large Stems elected, and strip off their Berries into a Tube, wherein put a little Water, and between the Palms of your Hands, rub the Berries to pieces, to separate the Pulp of the Berries, which will swim on the Surface of the Water, from the Seed that sinks to the Bottom.

(3.) Having thus separated the Seed from the Shell and Pulp of the Berry, pour off the Water, and lay the Seed to dry on a dry Floor, &c. observing to lay it very thin, and to keep it stirring about once a day, till perfectly dry.

(4.) The Seed being thus saved, keep it in a dry Place until the middle of the next *March*, at which time it must be sown either in flat-bottom'd broad Drills, made with the full breadth of a Hough, or at random in Borders about three Feet wide, being cover'd

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cover'd with the natural Earth made fine, about two Inches thick.

And as *Asparagus* Plants of one Year's Growth are the very best of all others, therefore be careful to sow the Seed of a moderate Thickness, that the Plants may receive their full Nourishment, and not starve one another by their being too numerous.

(5.) The best Season for planting *Asparagus* in light or hot Lands, is *April*, and in sandy cold Lands, the beginning of *May*, and not in the beginning of *March*, as Mr. *Bradley* directs in his new Improvements, Part the Third CORRECTED, page 141. For to my certain Knowledge, I have known many Labours lost, by planting so very early, before that their Roots are disposed to strike, which they never fail of doing about the middle of *April*, and immediately grow away with good Success. Whereas when they are planted at the beginning of *March*, before they are by the Heat of the Spring put into a State of Growth, and wet and cold Weather comes thereon; 'tis very rare that one Root in ten ever comes to one tenth the Perfection as those planted in *April*.

(6.) The proper Season for trenching and preparing the Land, wherein *Asparagus* is to be planted, is *November*, or the beginning of *December*, and not at the time of planting in *April*, &c. as has been always practised.

The manner of performing this Work is as follows.

About the beginning of *November*, or sooner, if the Ground will work, open a Trench the length or breadth of the Ground you intend to plant; of two Spit and two Crums in depth, which being done, throw into the Trench as much well rotted Horse Dung, &c. as will fill it up about one Foot from the Bottom, and thereon cast the first Spit of the second Trench, which must be afterwards well mixed with the Dung underneath, by the help of a Dung-Fork, Sparrow-grass-Fork, &c. before that the Crum and second Spit come thereon. This bottom Spit being thus well worked in with the Dung, throw on the first Crum, and thereon a second laying of Dung of the same Thickness of the former, and on that, the bottom Spit of the second Trench; but herein observe that this bottom Spit of the second Trench must be thrown into Ridges, and not levelled down as is usual, and to cover such parts of the Dung as is between the Ridges, cast

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cast thereon the second Crum, and then begin again with a Foot thickness of Dung in the Bottom of the second Trench, which mix with the upper Spit of the third Trench, &c. till the whole is compleated.

The Quantity of Dung necessary for one Rod of Ground, is about one good Cart Load and an half, or three quarters, if to be had. And altho' I have not hitherto mentioned any thing of the Care, as ought to be taken, in having the Land perfectly clean from Couch-grass, Thistles, Vervine, &c. yet that must be carefully executed, or otherwise 'twill be of a very bad Consequence.

About the middle of *April*, when the Season of planting is arrived, and those Ridges sweetened and meliorated by the Winter's Frosts, &c. (for which I directed their being ridged) throw them down, and with a Dung-Fork, &c. mix the upper laying of Dung therein, and level it as you go on, ready for planting.

Having thus prepared the Ground fit for planting, set out your Beds (which ought to be) four Feet in breadth, and the Alleys between them two Feet and half. This being done, divide the breadth of each Bed in four equal Parts, which being each one Foot, is the Distance that the Rows must be from one another.

The manner of planting *Asparagus* Roots with Dibbers is entirely wrong, for by crowding all their Fibres together the Earth cannot encompass them, and therefore die in great Quantity. But to prevent such Losses and Disappointments, observe the following Direction, *viz.* Prepare a Line mark'd with Knots of Thread, at nine Inches apart, which set on the first Division of your Bed, and against every Knot make a chop with a Spade, wide enough to receive one *Asparagus* Plant, which place against the Knot of the Line about six Inches below the Surface, spreading their Root singly against the side of the Chop, and closing the Earth well between and over them, and in like manner proceed till the whole Plantation is completed.

The Custom of sowing Onions amongst the Plants in the Beds, and planting Colly-flowers or Artichokes in the Alleys, I cannot any wise commend, for they in general are Robbers of the Nourishment as should be preserved with care for the *Asparagus* only, which will soon repay the Value of such Onions, Colly-flowers, &c. ten-fold. Therefore I recommend, that

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Care being taken to keep them perfectly clean from Weeds, and that no Plant of any kind be suffered to grow amongst them.

Towards *Michaelmas*, before that the young Haulm is decayed, examine the several Lines of all your Beds, to find what Number of Plants has miscarried; and in such places, when they have so missed, place down a small Stick, &c. which will inform you where to make good your Plantation the *April* following.

About the middle of *October*, divide the Alleys in the middle and on each side, set off the breadth of half a Spit, and then straining a Line on each side, chop out the Alleys, and throw them upon the Beds, which will raise the Beds about two Inches in height, whereby the Buds of the Roots will be about eight Inches deep, out of the Danger of the Knife in cutting, (as I observed before) Frosts, &c. and the Alleys exactly between the extrem Lines of each Bed.

At the latter End of *February*, if the Spring be very forward, or beginning (but not later than the middle) of *March*, fork and rake the Beds, breaking the Earth very well, and picking out such Weeds as may have crept therein.

When *Asparagus* is planted very shallow, 'twill come much sooner in the Spring than that which is planted deeper; but then it is attended with these Misfortunes, 'tis always smaller, more exposed to the Winter's Frosts, subject to be killed by the Fork in forking, and by the Knife in cutting; so that altho' *Asparagus* be planted a moderate depth, and does not come in quite so soon, as that as is planted shallow; yet I cannot but recommend that manner of planting, because 'tis out of all the Dangers aforesaid, and is much larger and finer than the other.

About the middle of *October* cut down the Haulm, throw up the Alley, and at the End of *February*, or beginning of *March* following, fork and rake the Beds as before directed, and so in like manner every Year. When your Plantation has been thus managed three Years, 'twill then produce good *Asparagus*; but the less 'tis cut this third Year, the better it will be ever after; so that I would not advise you to cut longer than the End of *April* in the third Year, the middle of *May* the fourth Year, three Weeks in *May* the fifth Year, and the End of *May* every Year

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Year after. And in order to have this Plantation of a long Duration, you must every third Year lay on the Beds a good Coat of Horse Dung, &c. well rotted, which Work should be done at the end of *October*, or beginning of *November*, and at the same time the Alleys digg'd up, and spread over the Dung to preserve the saline Particles from being exhausted by the Sun, Wind, &c.

A Plantation cultivated according to these Directions, will produce the very best of *Asparagus* in great Quantity, and continue thirty Years, and upwards. Having thus demonstrated the true Practice of raising *Asparagus* in the natural Ground without artificial Heats, I shall in the next place explain its Propagation by artificial Heats, as hot Beds of Horse Dung, &c. The first Work to be done herein, is to provide or make choice of a piece of Land, that was very well dunged the last Year, and is very rich and mellow: Wherein plant the young Seedlings at the time, and in the same manner as before directed, excepting their distance and depth, which herein need not be so great; therefore if you plant them in Rows, about seven Inches apart, and four Inches asunder in the Rows, with their Buds two or three Inches under Ground, 'tis fully sufficient, because that their Duration therein is but for two or three Years, or thereabouts.

Your Nursery being thus planted of such a Magnitude as is necessary, care must be taken to keep them clean from Weeds, for the space of two Years after planting, at which time they are often used in the Hot Bed; but for my part, I cannot commend that Practice, having found by Experience that they produce much finer *Asparagus* when let alone until the third or fourth Year after planting. And in order to have plenty of *Asparagus* every Winter, viz. from the beginning of *November*, until the end of *March*, or a Week in *April*; you must every *April* make a new Plantation, that as you take up and force one Plantation this Winter, another may be coming in Readiness to succeed that the next Winter, and after that another, and so on.

Being thus prepared with a good Stock of Plants, we will now proceed to the main Thing, that is, to receive a recompence for our Labour, which must thus be acquired.

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At the latter end of *October* throw up in a heap six, eight, or ten Cart Loads of fresh Horse Dung, mixed with Sea-coal Ashes, and watered, if very dry; and in the Operation hereof observe, that you shake and separate the settled parts of the Dung, so that it may be all free and fit for working; also observe, that the Sea-coal Ashes be well mixed, for they add very much to the Duration of the Heat. After your Dung has laid in a heap, working for the Space of three or four Days, if the Quantity does not exceed three or four Loads, or six or seven Days, when as many Loads, &c. set out the Dimensions of your Bed, which in breadth should be about eighteen Inches more than the breadth of your Frame, so that the back and forepart of the Frame may stand about nine Inches within the upright of the Bed: The length of your Bed being always governed by the length of the Frames, I need not say any thing on that head more, than that the length of the Bed should be always as much longer than the Frame as it is in breadth, viz. eighteen Inches.

The Magnitude of your Bed being thus determined, place it direct East and West, that the reclining Glasses may be direct South. Then work up the same equally, shaking and mixing the Dung and Ashes in all parts alike, free from Clods, &c. But do not tread it down as you work it up, according to the common Way, for that Error is the cause of that violent Heat which always attends new Hot-Beds made that Way. Therefore to prevent such immoderate Heat, which oftentimes destroys good Plants, &c. and to cause a moderate moist Heat, of a long duration, most natural to all Vegetables, work up your Bed firm and tight with your Dung Fork, and, as I said before, equal in all its parts, of such a height as, when settled, to be about three Feet, or three Feet and half high: Making the back part some small matter higher than the foremost part, that it may lie a little sloping towards the Sun.

About three Days after your Bed is made 'twill have settled its self, at which time cover it about four or five Inches thick with any common sifted Earth, which encompass with Straw-bands pinned down, to preserve the Earth from falling from off the sides; and thereon place the *Asparagus* Roots as thick as possibly you can place their Buds together, without pruning any part of their Roots; covering them about three Inches thick with common Mould, sifted or skreen'd tolerably fine.

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The Plantation being thus executed, let it remain in this State for six or seven Days, if the Bed proves very hot, before you place the Glasses on the Frames: Which may be very easily discover'd by thrusting three or four tolerable large Sticks into divers parts of the Bed at the time of making, which will be heated by the Bed in Proportion to the Heat, and by pulling those Sticks out and feeling them, may give a very good Judgment of the Heat of the Bed. At the aforesaid time of putting off the Lights of the Frames, add a Thickness of Earth more over the *Asparagus*, that will (with the former) bury the Buds about five Inches deep, and about three Days afterwards the Buds will appear above Ground, when you must carefully observe to give them as much Air as the Weather will permit, that they thereby may receive their natural green Colour, and a good Taste withal. If the Nights are not very cold or frosty, one single Mat is a sufficient covering, and when very cold the Mats may be doubled. A Plantation of this Kind will produce very good *Asparagus*, plentifully every Day, for the space of a Month, and when the Bed begins to decline its Heat towards the end of the Month, cover the Glasses every Night with fresh long Horse Litter, which will draw the Bed very much, and cause the Shoots to ascend with as much Vigour as if the Bed had been new lined.

It very often happens that good Plants will produce *Asparagus* longer than the Heat of the Bed continues, and at such times when the Heat of the Bed is in a manner over, take a cutting Knife as is used to cut Hay, Straw, &c. and cut down the sides and end of the Bed, and as much underneath the Frame, as will not cause the Plants to fall, which fill up with fresh Horse Dung, and Sea-coal Ashes, very firm and tight underneath, and about one Foot and half without at the Bottom, carried up diminishing, so as to be about eight Inches without the Frame at the Top.

This additional Dung is called the Lining of a Bed, and may be repeated as often as is necessary, for it never fails of recovering the lost Heat, and continues the Growth of the Plants their whole Duration.

When the *Asparagus* Shoots begin to come smaller than at first, prepare more Dung, as before directed, and make another

Bed, to succeed the first, and after that a third, &c. during the whole Season.

If that your Earth grows dry 'tis requisite to give it a moderate watering, which thus prepare. In some convenient part of your Bed place a large Pan or Pail of Water, at the time of your covering up at Night, and by the next Morning it will have received such a Heat, as is most natural to the Heat of the Bed, and may then be sprinkled about, with a watering Pot and Rose, without cooling or giving any check to the Heat of the Bed, or Growth of the Plants.

And as Heat and Moisture are the Principles of Vegetation, therefore never suffer your Plants to be over dry and hot, which causes their Shoots to be very small and insipid, which on the contrary, when moderately hot and moist, are very large and of a delicious Taste.

N. B. That those Directions laid down for cutting *Asparagus* in the natural Ground, are to be observed in the artificial Beds also : And the best time for this Work is the Morning.

S E C T. III.

Of the white and red Beets.

1. *Their Names.*

A Beet is called in *Latin* *Beta*, by the *Grecians* Σεῦτλον, τεῦτλον, the *Germans* *Maugolt*, the *Spaniards* *Aselgas*, the *French* *de la Porée*, *des Jotes*, and *Betes*.

2. *Their Description.*

1. The white Beet is an Herb which produces very large, broad, smooth and plain Leaves, from which ascends one, and sometimes two Stalks, of a tolerable thick Substance channel'd on the outsides, from whence break out small Shoots, which produce much lesser Leaves than those at the Bottom, with their Clusters of Flowers or Blossoms towards their extream parts, which is succeeded by its uneven prickly Seed; but neither Stalk, Blossoms, or Seed are produced till the second Year after being sowed.

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The Root is generally very large, and runs downward like unto a Parsnip, being attended with many fibrous Roots, which break out of its Sides.

2. The red Beet is of make and growth much like unto the white Beet, excepting its Colour of Leaves, Stalk, Blossoms, and Root, which last, when sliced, produce wonderful fine delightful Colours. But besides the common white and red Beets, there are many other Kinds, as the large *Turkey* red Beet, whose Leaves, Stalk, and Blossoms are of a very deep red, and its Root also, which in Form is very like unto our long rooted kind of Turnep. The variegated or striped Beet, &c. whose difference is chiefly in Colour, more than Form.

3. *Their Temperature.*

The white Beets are temperately moist and cold, and the others in general are cold and dry.

4. *The Medicinal Virtues.*

Being boiled and eaten in Soop is a great loosener to the Belly, and its Juice snuffed up the Nostrils gently draws forth Phlegm, and purgeth the Head.

5. *The Parts for use.*

The Leaves of the white Beet, boiled and eaten in Soop, are excellent good, as observed before: And the Leaves of the large red Beet, boiled and eaten with Oyl, Vinegar and Pepper, make a delicate Sallet. The Roots of the red Beet are chiefly used in the garnishing of Dishes, &c.

6. *The Quantity of either is at Pleasure.*

7. *Their Cultivation.*

Altho' there be divers Kinds of Beets, as before described, yet their Difference makes no Alteration in their Culture. They in general love good sandy moist Loam, are sown in *March*, either in small Borders, and afterwards transplanted out at about fifteen Inches apart, or in Quarters, singled out with a Hough, at the like Distances.

S E C T. IV.

Of Broom Buds.

1. *The Names.*

THIS Shrub is called in *Latin Genista*, and by some *Genesta*, in *Italian Genestra*, in *Spanish Genestra*, or *Giestra*, in *High Dutch Pfrimmen*, in *Low Dutch Brem*, in *French Genest*, and in *English Broom*, and as 'tis supposed from its Usefulness in making good Brooms, for the sweeping of Houses, &c.

2. *Its Description.*

The Sort of Broom that I am now treating of, is the common Broom, which is found growing in most dry Pasture Lands well known to every good House-wife, and therefore needs no farther Description.

3. *Its Temperature.*

The Branches, Buds, Blossoms and Seed are hot and dry in the second Degree.

4. *Its Medicinal Virtues.*

The Decoction of the young Shoots, made with Water, is a great cleanser and opener of the Liver, Milt, and Kidneys; and with Wine, brings away by Stool all Kind of watery and dropical Humours.

5. *The Parts for use are,*

The young Buds and small Flowers preserved in Pickle.

6. The Proportion or Quantity of them to be eaten in a Sallet is at Pleasure, they stir up, and create a very good Appetite, and are excellent against the Spleen and Scurvy.

7. The Culture of this Plant has not been as yet considered in the Garden, which I believe proceeds from its being naturally a plentiful Grower in most (if not all) Parts of this Kingdom without any Cultivation whatsoever.

S E C T. V.

Of Brooklime.

1. Its Names.

BROOKLIME, or *Water Pimpernel*, is of four Kinds; As first, That which is gathered and eaten in Sallets, called Brooklime only, and in *Latin Anagallis seu Becabunga*. Secondly, That which is called *Water Pimpernel*, and in *Latin Anagallis Aquatica*. Thirdly, Small *Water Pimpernel*, in *Latin Anagallis Aquatica minor*. And lastly, Pale flowered *Water Pimpernel*, in *Latin Anagallis Aquatica minor flore pallido*. But as my Business at this time is with the first only, therefore I shall be very full in explaining its Virtues in Sallets, and pass over the others in Silence.

2. Its Description.

The Stalks of this Herb are of a cylindrical Form, divided into divers Joints, from which spring their Leaves, that are of a deep green, and placed opposite to each other. The Flowers put forth from the Stalks of the Leaves, as 'twere from their Bosoms, and are of a very beautiful blew Colour, not unlike unto the Flowers of *Land Pimpernel*. Its Root is white, and of a creeping Nature, like unto *Spear-mint*, breaking out Runners at every Joint, as also its fibrous Roots.

3. Its Temperature.

Is temperately hot and dry.

4. Its Medicinal Virtues.

This Herb eaten in Sallets is good against the Scurvy, and being stamp'd and its juice taken in Wine, helps the Strangury, and Griets of the Bladder, as Gravel, Stone, &c.

5: The Parts to be eaten in a Sallet are the tender Leaves.

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6. The Proportion or Quantity that should be eaten in a Sallet, is an equal Quantity, *viz.* if the Sallet is composed of three Kinds of Herbs, there must be of Brooklime one third part; if of four Kinds, one fourth; if of five Kinds, one fifth, &c.

7. *Its Cultivation.*

This Herb delighting to grow by Rivers Sides, purling Streams, Brooks, &c. is there found in great Plenty, and therefore its Cultivation in Gardens is not regarded.

S E C T. VI.

Of Cabbages, Savoys, &c.

Altho' Cabbages, Savoys and Colly-flowers are now so called and distinguished from what is generally called Coleworts, yet they are all of the Colewort Race, as doth appear by their *Latin* Names. The Garden Colewort is called in *Latin* *Brassica vulgaris sativa*; the white Cabbage, *Brassica Capitata alba*. the red Cabbage *Brassica Capitata rubra*; the Savoy *Brassica Sabauda*; the Colly-flower, *Brassica Florida*, being no more than close growing (or headed) Coleworts, and the like of all others of the Cole Tribe.

2. *Their Description.*

To make an Attempt of informing Mankind what a Cabbage, Savoy or Colly-flower is, would be both a ridiculous and simple Thing, seeing that every Person living are perfectly acquainted therewith; and therefore I will, instead thereof, mention such Kinds as are worth our Notice.

The best Kinds of Cabbages are those which, tho' firm, close, and very large, yet are very light, as the true Sugar-loaf, the early white *Battersea*, and the *French* Cabbage; and of Savoys the same. But of all the several Kinds, the curdled Savoy, yellow in the middle, environed with deep green curdled Leaves, is, of all others, the most beautiful, sweetest, and despises the Severity of our Winters Frosts, which the other Kinds will not.

The red Cabbage is also worth our Notice, in Respect to its making a fine Sallet when pickled, or eaten raw with Oyl and Vinegar, being sliced very small.

N. B. That the best Cabbages, &c. are produced from such Stalks as are very short, and indeed, some are so very short, as for the Cabbage, when growing, to almost rest upon the Ground.

Colly-flowers are of the Cole Race, and their Leaves not much unlike the Colewort; but as this Plant is not in Season, during these Months of *January, February* and *March*, I shall refer its Description to the proper Season.

3. *Their Temperature.*

All Coleworts, and others of the cole Race, are dry and binding.

4. *Their Medicinal Virtues.*

The Nature of Cabbages, &c. are such, that when they are boiled moderately, they are loosening, and when over much, astringent.

5. *The Parts for use are,*

The young Plants in the Spring, when well grown, their Leaves cabbaged; and afterwards their tender Sprouts, which spring from the several Joints or Buds of the Stalks.

6. The Quantity to be eaten is at Pleasure.

7. *Their Cultivation.*

To be well furnished with Cabbages and Savoys, in the Months of *January, February* and *March*, sow the Seed at three different Seasons, viz. *March, April*, and *May*, which plant out in Rows at two Feet Distance from each other; and the like in the Rows, in *July, August*, and beginning of *September*. That is, those sown in *March*, to be transplanted out in *July*; those of *April*, in *August*; and those of *May*, in *September*; which will very orderly succeed one another, during the Months above-mentioned.

When the Heads of Cabbages are cut from the Stalks, observe to cut them off sloping, with the Slope or Cut towards
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the South; as also to cut away from the Stalk all the bottom Leaves, to give Liberty for the free Growth of their Sprouts, which are preferable to the Cabbages themselves, and will plentifully furnish your Table till the middle of *April*.

N. B. My Reason for advising the aforesaid Care of cutting off the Cabbages from the Stalks, is, that the Rains, Snow, &c. may not rot them by falling on their upper-parts, when cut off horizontally, and thereby be deprived of that useful second Crop of Sprouts.

S E C T. VII.

Of Carrots.

1. Their Names.

OF CARROTS we have three Kinds, *viz.* The *yellow* or *orange Carrot*, the *red Carrot*, and the *wild* or *white Carrot*; of which the yellow Carrot is the most valuable, called in *Greek* *σαφύλινος*, in *Latin* *Pastinaca sativa tenuifolia*, in *High Dutch* *Geelruben*, in *Low Dutch* *Geel Peen*, *Geel Pooten* and *Geel Wortelen*, in *French* *Carotte*, and *Racine jaulue*, in *Italian* *Pastinaca*, in *Spanish* *Canahorta*, and in *English* *yellow Carrot*.

2. Their Descriptions.

1. The *yellow Carrot*, its Leaves are of a deep green, composed of many small Leaves like unto Fennel, from the midst of which rises its Stalk about four Feet in height, being pithy in the middle, and somewhat hairy without, producing at its extream parts round Tufts, which afterwards open into large Tufts of Blossoms of a whitish Colour, which is succeeded by their rough and hairy Seeds, of a very pleasant sweet smell when rubbed.

The Root is of an Orange (rather than a Limon) Colour both without and within, delighting in a deep sandy Soil, and very often grows to a large Size. I have had Carrots of this Kind that have been twenty two Inches in Length, and of twelve Inches and half Circumference at their greatest End. And altho' Carrots of a very large Size are much valued by many,

many, yet I cannot recommend them, so much as those of a middling Size, which are always much sweeter, and nothing near so watry and insipid as those very large ones are.

2. The *Red Carrot* is of the same Form, both in Leaves, Stalk, Seed, and Root, but very rarely grows so large. Its Leaves are of a dark reddish green, and its Root of a blackish red without, and yellowish within; and is very seldom cultivated in our Gardens.

3. The *wild Carrot* is called in Greek *σαφύλινος ἄγριος*, in Latin *Pastinaca Sylvestris tenuifolia*, by some *Daucus*, in High Dutch *wild Pastenen*, *Vogel nest*, in Low Dutch *Vogels nest* and *wild Caroten*, *Crookens cruyt*, in French *Pastenade Saunage*, in English *wild Carrot*, and after the Dutch *Birds nest*.

The Leaves of this Carrot are in Form very like unto the orange or yellow Carrot, but something whiter, and more hairy, as also are the Stalks, being a little rough withal. The Blossoms are produced at the extream parts of the Stalks, as the others, but in much lesser Tufts, which when the Seed is ripening, are drawn together, something resembling the form of *Birds nest*, from which, by some, it has been called *Birds nest*. The Roots are very small, of a mean length, and a whitish Colour.

3. Their Temperature.

1. The Roots of the yellow or orange, and red Carrots are temperately hot, and something moist, and their Seeds hot and dry.

2. The wild Carrot, both Root and Seed, are hot in the second Degree.

4. Their medicinal Virtues.

1. The Virtues of the yellow or orange, and red Carrots, are very little more than that they are a pleasant Sallet, when boiled and eaten with Meats, &c. They are long digesting in the Stomach, and are something windy.

2. The wild Carrot, its Root being boiled in Wine, and the Decoction drunk, provokes Urine, and expells the Stone.

The Seed infused in white Wine, and the Infusion being drunk, greatly helps the Dropsie, breaks and dissolves Wind,

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cures the Cholick, and is very good against the Stone and Gravel.

5. The Parts for the Kitchen use are the Roots only.

6. The Quantity or proportion is at pleasure.

7. Their Cultivation.

The proper Soil (as I have before observed) for the yellow or orange Carrot, whose Cultivation I am now speaking of, is a light sandy Soil, rather than a strong Loam, which generally infests them with numberless Quantities of Worms, and gives a very bitter insipid Taste. We must therefore furnish our selves with sound Seed of the best Kind; and make choice of a piece of such light Land, as is most agreeable to their Nature.

This being done, cause the same to be well digg'd about the middle of *June*, and therein sow your Seed, treading the Ground all over, that the Seed may be well settled therein; and being afterwards kept clean from Weeds, and singled out with a small Hough, at about three Inches apart, will, by the *Michaelmas* following, be of a tolerable good Size, and fit for the Table.

But as my Business at the present is to provide a plenty of young Carrots, for the Months of *January*, *February* and *March*, I shall therefore give proper Directions for the same.

As soon after *Michaelmas* as the Carrots, before raised, are observed to have done growing, take them out of the Ground, cut off their Tops so close to their Heads, as to leave none of the Leaves, &c. and dry them well in the Sun. Then having made choice of a dry piece of Ground, dig a Trench of two Feet deep, and about twenty Inches or two Feet in breadth, and of such a length as is necessary.

This being done, place therein your Carrots, in regular courses, one over the other, till the Trench is filled within six Inches of the Surface of the Earth, and then placing the Earth over them, well settled, in the Form of a Ridge, to cast off the Water; you will have finished your Magazine, from which you may be furnished with plenty of Carrots in a much better Manner, than when let growing all the Winter in the Ground; which

which generally fills them full of the Worm and gives a very disagreeable earthy Taste. A Magazine or Pit of Carrots, well managed, will plentifully furnish the Table, not only the Months of *October*, *November* and *December*; but *January*, *February*, *March* and *April* also. And if I may be allowed to give my Opinion, they are much preferable to those that are sown in *February* or *March*, which are fully grown when taken up in *September* or *October*.

N. B. That the manner of sowing Carrots in *February* or *March* for the Winter, is performed as before directed; but in the houghing or setting them out, care must be taken to leave them single, and not nearer to one another, than seven or eight Inches.

And as we are obliged to hough amongst them, twice at the least, 'tis generally practised in the first time of houghing, to leave them rather thicker than aforesaid, as at the Distance of five or six Inches; and at the second houghing, give them their proper Distance as before directed. If that your Carrots are very well grown when you come to the second houghing, be careful that the corner of the Hough don't cut or bruise their tender sides, which will cause them to grow deformed, and very disagreeable to the Eye.

When the Season for taking up these winter Carrots is arrived, as in *October*, and they have received their full Maturity of Growth, be careful in taking them out of the Ground, that they are not either broken or bruised with the Fork which in the Winter causes them to rot; that they be well dried, and pitted as above directed, and entirely free from every part of their green Top, which never fails of making a very great rot amongst them, wherever it happens.

The manner of preserving Carrots in Sand where 'tis to be had, and sufficient Room within Doors also, is a very good Method; but where large Quantities are required for large Families, &c. and very severe Frosts, 'twill not do; and therefore the aforesaid Method, which I have recommended, is much preferable thereunto.

And before that I conclude this Section, I shall speak a Word or two in Relation to the saving of Carrot Seed, and the manner of preserving a good Kind.

Amongst

New Principles of Gardening.

Amongst the several Vegetables cultivated in Gardens, there are none so difficult to preserve from Degeneration as good Carrots; for if very great Care is not taken in the choice of those planted for Seed, they immediately degenerate, and soon after become wild, or very near thereunto.

The common received Notion amongst divers People, of good Carrot Seed once acquired, will always continue so, is absolutely false; and is the true reason of so many indifferent Kinds of Carrots now in *England*.

And to prove this, I made the following Experiment, *viz.* First, I made choice of a very beautiful orange Carrot, of a fine length and magnitude, which during the Winter, I preserved in Sand; and when *March* came, planted it in a very light sandy Loam, wherein it thrived with great Success, and produced several very large Heads of sound Seed, which I gathered and saved very dry.

In *March* following I made choice of a fresh piece of Land, very light and agreeable to their Nature, wherein I sowed the Seed before saved, which soon after came up in great Plenty, and grew to a very large Size; but not above one in ten was truly as beautiful in Colour as their original; not but that the others were in general very good, some few excepted, which were perfectly white and wild.

Having received thus much Satisfaction from my Experiment, I was resolved to carry it on farther, and to that end I made choice of another Carrot, the second best, or degenerated one Degree of Colour from the original, which Carrot I preserved during the Winter, planted it in *March*, and it grew with good Success, and produced very near as much Seed as the former, which the Spring following I sowed, (as before) and the product was a very pale yellow, and a great many quite white, without so much as one of so good a Colour, as that from which I saved the Seed.

This last part of my Experiment gave me a plain Proof of the Cause of the several bad Kinds of Carrots in *England*, (as I before observed) as well as of the great Care that ought to be taken to preserve a good Kind. And 'tis my real Opinion that had I carried on the Experiment farther, they would at length become all white and wild, as the wild Carrots themselves are.

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The first Motive that moved me to this Experiment, was from the prodigious great Care and Exactness observed by my Father Mr. *Daniel Langley*, Gardener at *Twickenham*, in his annual Choice of the best Carrots, from which he yearly raises great Quantities of Seed, and furnishes many at very reasonable Rates.

S E C T. VIII.

Of Chervill.

1. Its Names.

Columella calls Chervill *Chærephyllum*, in *Latin* 'tis called, *Cerifolium*, in *High Dutch* *Korffeskraut*, in *Low Dutch* *Kervell*, in *Italian* *Cerifoglio*, in *French* *Du Cerfueil*, and in *English* *Chervell* or *Chervil*.

2. Its Description.

The Leaves of Chervil are slender, and very beautifully indented, being something hairy and of a light green when young, but tending to a red when its Seeds are near ripe. The Stalk seldom rises above one Foot, or thereabouts in height, and is very slender, at whose ends are small Tufts, which produce white Flowers, that are succeeded by its Seed, of a long slender sharp pointed Form.

And besides this Kind of Chervil cultivated in Gardens for Sallets, there is another Kind, called the *great Chervil*, or *Myrrhe*, and in *Latin* *Cerifolium magnum*, whose Leaves are deeply indented like unto Hemlock, but of a very pleasant Smell and Taste, and by many called sweet *Chervil*.

3. Its Temperature.

The Temperature of Chervil is temperately hot and moderately dry.

4. Its Medicinal Virtues.

The Nature of Chervil is such, that if 'tis boiled in Wine,
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and drank, it greatly provokes Urine; and its tender Leaves eaten in Sallets are very refreshing, and cherish the Spirits.

5. The Parts for use in Sallets, are the Seed-Leaves, and the next to them, being eaten with other Sallet Herbs in Composition.

The green Tops or Seeds of Chervil, after the going off of the Blossoms, is an excellent Sallet, for cold and weak Stomachs, being eaten with Oyl, Vinegar, and a little Pepper.

6. The Quantity to be eaten in a Sallet, amongst other Sallet Herbs, is an equal part, as a third, a fourth part, &c. if the Sallet is composed of three, four, &c. sorts of Herbs.

7. Its Cultivation.

The usual and best Method of propagating this Sallet Herb, during the Months of *January*, *February* and *March*, is to make a gentle Hot-Bed, covered about seven Inches thick, with fine mellow Soil, and therein sow your Seed in little Drills, of an Inch deep, and about two Inches asunder, as also Cresses, Mustard, Radish, Turnip, Spinage, and Lettuce: Wherein observe that you make your Bed large enough to have two Crops, always succeeding each other; and that whenever you gather a Sallet, be sure that you first pull up the same, and cut off the Roots when out of the Ground, and not leave them standing in the Bed, after their Leaves are cut away. Also observe, that whenever you gather a Sallet, be it little or much, that you at the same time sow as much as you gather, changing the Kinds of each Drill every time of sowing, that is, the Drill wherein you sowed Chervil the first time, sow with Mustard the second; Turnips the third; Spinage the fourth, &c. still changing the Species; and thereby the Earth of one Bed will produce very good salleting as long as the Heat endures.

SECT.

S E C T. IX.

Of Chives.

1. *Their Names.*

CIVES are called in Greek *Σχοινόπρασον*, *Schænoprasum*, in Dutch *Bicfloack*, or *Junceum Porrum*, or *Rush Leeke*, in French *Brelles*, and in English *Cives*, *Chives*, *Civet* and *Sweth*.

2. *Their Description.*

The Leaves of Chives seldom rise above four or five Inches high, of a long, slender, round form, like unto common Rushes, from which rise small and tender Stalks, at whose extream parts are produced globular Blossoms. Their Roots are composed of a great Number of very small Bulbs joined together, from which strike great Quantities of fibrous Roots, in a perfect Matt down into the Earth. Their Taste is between an Onion and a Leek, and are by many called the Leek-rush.

3. *Their Temperature.*

Hot and dry.

4. *Their Medicinal Virtues.*

Chives are great Provokers of Urine, but are hurtful to the Eyes, and do ingender hot and gross Humours.

5. Their Parts for use are the tender Tops, eaten alone with Oyl, Pepper and Vinegar, or in Composition with other Herbs.

6. The Quantity to be eaten, in Composition with other Sallet Herbs, is an equal part.

7. *Their Cultivation.*

Chives are increased by their off-sets, or parting their Roots. They delight in the Shade, and love a light rich Land. The

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best Season to transplant them is in *March*, at which Time cut off Leaves or Grasse, and plant them in Borders, at about seven Inches apart in the Rows, as well as one Row from the other.

N. B. That a Border about three Feet and half in breadth (which will receive seven Rows) and twenty five or thirty Feet in length, is fully sufficient to serve a very large Family. *Note also*, That the oftener Chives are cut, the finer their Leaves come, and consequently more agreeable in Sallets, than those Leaves that are coarser and tough.

S E C T. X.

Of Clary.

1. Its Names.

CLARY is called by the Apothecaries *Gallitricum*, as also *Oruala*, and by some *Totabona*, but not properly; in *Italian* *Sciaria*, in *French* *Oruale*, in *High Dutch* *Scharlach*; in *Low Dutch* *Scharleye*, and in *English* *Clarie*, *Cleere*, or *Clary*.

2. Its Description.

Altho' there be divers kinds of Clary, besides the garden Clary, as the small Clary called in *Latin* *Gallitricum alterum*, another sort called *Jupiter's Distaff*, and in *Latin* *Colus Jovis*: The wild Clary, or *Oculus Christi*, called in *Latin* *Horminum Sylvestre*, and the Clary with purple Leaves, *Horminum Sylvestre foliis purpureis*: Yet that Clary of which I am now to treat on, is the garden Clary, without farther Regard to any other.

The Leaves of the garden Clary are of a broad oval Form, with their Edges a small matter indented, of a whitish Colour, and somewhat rough and hairy, as also are the Stalks, which produce their Blossoms in *June*, *July* and *August*, that are not unlike those of Sage, which are succeeded with long Husks, wherein is their Seed of a black Colour which ripens soon after. The Root is divided into many small fibrous Roots, and the Herb in general is of a very strong Smell. When its Seed is ripe, which is always the second Year after sowing, the Root,
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Stalk and Leaves immediately perish; so that to have this Herb always fit for use, 'tis best to sow a small Quantity every Year, to succeed each other, as they decay.

3. *The Temperature.*

Clary is hot and moderately dry in the third Degree.

4. *Its Virtues.*

The Leaves being stamped or fried whole with Eggs, in the manner of a Tansie, is a very great Strengtheners to the Stomach, Eyes and Back.

5. The Quantity to be eaten is at Pleasure.

6. The parts for use are the young Leaves of the first Year's Growth, fried in fresh Butter, with Cream and Eggs, beaten with Sugar, and juice of Orange or Limon.

7. *Its Cultivation.*

The Seed being sowed when ripe, and sowed in *March*, in a small Border of about four Feet wide, and fifteen or twenty Feet long, will produce a very great Quantity, sufficient for any Nobleman's Family whatsoever, and delights in a rich sandy Loam.

S E C T. XI.

Of Clivers or Goose-Grass.

1. *Its Names.*

CLIVERS is called in Greek ἀπαρίνη, *Aparine*, in Latin *Lappa minor*, but not properly. *Pliny* affirms it to be *Lappaginis Speciem*, of some *Philanthropos*, a Man's Friend, because that it takes hold of Garments, &c. when touched by them. In *Italian* *Speronella*, in *Spanish* *Presera*, or *Amordi Hortalano*, in *High Dutch* *Kleeb, Kraut*, in *French* *Reble ou Grateron*, in *Low Dutch* *Kleeferugt*, and in *English* *Goose-share, Goose-grass, Clever, Claver, or Cliver.*

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2. *Its Description.*

Clivers or Goose-grass, hath many small square Branches very rough and sharp, full of Joints, which are beset with small hairy Leaves, and are generally six in Number at every Joint. The Flowers or Blossoms are produced at the tops of the Sprigs of a white Colour, and very small, as also is the Seed which are of a spherical Form, but indented or hollow on one Side.

The Roughness or Ruggedness of this Plant being very great, 'tis reported by *Dioscorides*, that the Shepherds used this Herb, to strain or take the Hairs out of Milk, instead of a Cullander, or other Strainer, now used.

3. *Its Temperature.*

According to *Galen*, 'tis moderately hot and dry, and somewhat thin of parts.

4. *Its Medicinal Virtues.*

Clivers being boiled and eaten in Soup, or spring Pottage, prevents Fatness, and its Juice is good against Poyson, being drank in Wine.

5. *The Parts for use.*

The tender Tops, gathered when young in the Spring.

6. The Quantity to be eaten, must be proportional, to the other spring Herbs eaten with it, as half if but two Kinds; three Parts if three Kinds; four Parts if four Kinds, &c.

7. *Its Cultivation.*

This Herb being a great Delighter in Hedges, Ditches, &c. is very easy to be had in great Plenty during the Spring and Summer, and therefore is never cultivated in our Gardens.

S E C T. XII.

Of Cowslips.

1. The Names.

Cowslips are commonly called *Primula veris*, and by some *Arthritica* and *Herba Paralysis*, good against the Pains of Joints, Sinews, &c. In *Italian Brache Cucult*, in *English Pettie Mulleins* or *Palsie-wort*, and vulgarly Cowslips.

There are also divers other Flowers of this Tribe that are very pleasant in Sallets; as first, the Field Oxelip, called *Primula pratensis inodora lutea*; secondly, double Paigles, *Primula hortensis Anglica*; thirdly, double Cowslips, *Primula veris flore geminato*; fourthly, the field Primrose, *Primula veris minor*; fifthly, the double white Primrose, *Primula veris flore pleno*; and lastly, *Primula flore viridi*, the green Primrose.

2. Their Description.

1. These kind of Flowers, are very nearly related to the Mulleins, and was by the Ancients called *Verbasculi*, small Mulleins. The common Cowslips being well known to every Boy, I need not trouble my Reader with any Description thereof.

2. The Oxelip differs but very little from the Cowslip, in the form of its Leaves, but are something lesser, as also are its Flowers, which fall very short of that delightful Smell, which the Cowslip greatly abounds in.

3. The double Paigle, called of *Pena Primula hortensis anglica omnium maxima & serotina Floribus plenis*, the greatest English garden Cowslip with double yellow Flowers, being also well known to every one, needs no Description.

4. The double Cowslips, or those that are two in a Hose, called Hose in Hose, is also well known, and therefore needs no Description. As also, the common white field Primrose, the garden double Primrose, and the green Primrose, whose Flowers are somewhat welted about the Edges, and therefore were called by *Pena, silvarum primula Floribus obscure virentibus fimbriatis*.

3. Their

3. *Their Temperature.*

Cowslips and Primroses are of a dry Temperature, and little if at all hot.

4. *Their medicinal Virtues.*

The Flowers being eaten in Sallets, are very good against the Gout and Palsie, and a Conserve made with their Flowers and Sugar prevaieth wonderfully against the Palsie, Convulsions, Cramps, and other Diseases of the Sinews.

5. *Their Parts for use.*

The Flowers being gathered and picked out of their Hoes are the parts to be eaten, being first infused in very good Vinegar, and eaten with other Sallet Herbs in Composition.

6. The Quantity to be eaten in a Sallet is double the Quantity of any one of the other Herbs in the Composition.

7. *Their Cultivation.*

Both Cowslips and Primroses being very plenty, in most moist meadow Lands, are therefore very seldom cultivated in our Garden. But if any one is desirous to encourage these Flowers in their Garden, which I cannot but acknowledge that they very well deserve, 'tis performed by parting their Roots, and transplanting their young Off-sets. And altho' these sorts of Flowers are very common in Meadows and Fields, which make them of so small a value among Florists; yet when they are promiscuously planted amongst other Flowers, as Polyanthos's, Hyacinths, Daffodills, Wall-flowers, Flos Adonis, Virginia Stock, &c. they make as pleasant and delightful an Appearance, as those others which require much more Labour and Charge in their Cultivations. They begin their Bloom at the End of February, and continue to the End of May, the Cowslip excepted, which seldom comes into Bloom till April.

S E C T. XIII.

Of Corn Sallet.

1. *Its Names.*

Corn Sallet is called in *Greek* λευκολόχανον, in *Latin* *Lactuca Agnina latifolia*, in *Dutch* *Wytmoes*, in *English* the *white Pot-Herb*, or *Lambs Lettuce*, and *Corn Sallet*.

2. *Its Description.*

Corn Sallet is naturally an Inhabitant of the Field, but for its being a very refreshing pleasant Herb, is now received into our Gardens, and was introduced by the *French* and *Dutch*, who were the first that eat it in Sallets in *England*.

Its Leaves are in Form long and narrow, of a pale green (and was therefore called the white Pot-Herb) from which rises a slender Stem, about ten or twelve Inches high, wherein are several Joints, out of which proceed two Leaves, and between them small Stems, bearing at the Ends small Tufts of white Flowers, very close and compact together, which are afterwards succeeded by Seed.

3. *Its Temperature.*

This Sallet Herb is cold and something moist, like unto Cabbage Lettuce.

4. *The Medicinal Virtues.*

'Tis a very great loosener and refresher of the Spirits.

5. *The Parts for use.*

The tender Tops and Leaves.

6. The Quantity to be eaten in a Sallet, is double the Quantity of any one other Sallet Herb eaten in Composition.

7. *Its Cultivation.*

This Sallet Herb is raised from Seeds sown at any time of the Year, 'tis a very hardy Herb, will grow on most Lands, and
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is an excellent good Sallet at all times, but particularly in the Winter and Spring.

S E C T. XIV.

*Of Garden and Water-cresses.*1. *Their Names.*

1. **G**arden Cresse is called in Greek *κάρδαμον*, in Latin *Nasturtium*, in French *Cresson*, in Italian *Nasturtio* and *Agretto*, and in English *Cresses*, borrowed from the Germans, who call it *Kersse*.

2. Water-cresses, in Latin *Nasturtium Aquaticum*, and Laver *Cratena*, and in English *Brown*, or *Water-Cresses*.

2. *Their Description.*

1. Garden-cresses, *Nasturtium Hortense*, or Town-cresses, has small narrow ragged Leaves, mordicant and hot in Taste. The Stalks are round, and generally rise near two Feet in height, producing many small white Flowers, which are succeeded by little flat Husks or Seed Vessels, like unto those of Shepherds Purse, wherein are contained Seeds of a brown reddish Colour, which when ripe (may be sown again, and) its Root then dies.

2. Water-cresses, the Stalks are weak and hollow, creeping upon the Ground, and strike Root at most of its Joints, which enables it to cover a large compass of Ground; the Leaves are compact, and their Edges something indented or jagged, growing exactly one against another, the end Leaf excepted, which stands alone. The Leaves are of a brown Colour above, and green underneath, which is the true sign to distinguish the physical Kind from the others. The Flowers are white, and appear in *July*, growing in spoke Rundles or Clusters, and the Root is a perfect Thrum or Bundle of Fibres.

3. *Their Temperature.*

1. Garden-cresses are hot and dry in the second Degree. And
2. Water-cresses are evidently the same.

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4. *Their*

4. *Their Medicinal Virtues.*

Garden and Water Cresses being eaten raw in Sallets, are very good against the Scurvy, and are very loosening and refreshing.

5. *The Parts for Use.*

Of Garden Cresses, the Seed Leaves; and the next to them —
Of Water Cresses, their tender Leaves and Shoots.

6. *Their Proportion in Sallets.*

The Quantity of each in a Sallet, where are many other Herbs that are cold and moist, as Cucumbers, Lettuce, &c. is of each three Times the Quantity of any other Kind of Sallet Herb used therein.

7. *Their Cultivation.*

Garden Cresses must be sown on gentle Hot-Beds, during the Months of *January*, *February*, and the first Fortnight in *March*, as directed for Chervil, after which they may be sown in the natural Ground under a South Wall, &c.

The Water Cresses are best in *March*, when they first appear, and as they delight in gravelly Springs, running Brooks, &c. are never cultivated in the Garden.

S E C T. XIV.

Of Cucumbers.

IN Consideration that many ingenious Gardiners raise early Cucumbers, and oftentimes cut Fruit for the Table in *March*, and sometimes in *February*, I have therefore plac'd them amongst the first Salleting, notwithstanding that I cannot recommend their being eaten so very soon as *February* or *March*, they being much too cold for the Weather of those Months.

1. *The Names.*

Cucumbers, are called in *Latin Cucumis sativus* or Garden Cucumber, in *Italian Concomero*, in *Spanish Cogombro*, in *High Dutch Cucumern*, in *Low Dutch Coucommeren*, and in *English Cucumber*, and vulgarly *Cowcumber*.

2. *Their Description.*

Altho' there be divers Kinds of Cucumbers, as the long and short prickly Cucumber, the long and short smooth Cucumber, the white Cucumber, the *Turky* Cucumber, the Adders Cucumber, Pear fashion Cucumber, *Spanish* Cucumber, wild Cucumber, &c. yet I cannot recommend any but the long and short prickly, the smooth and *Turky* Cucumbers, which in general are well known, and therefore need no Description.

3. *Their Temperature.*

All Sorts of Cucumbers are temperately cold and moist in the second Degree.

4. *Their medicinal Virtues.*

Cucumbers in general are soon putrified in the Stomach, but do not much nourish the Body, and what is, (as before) is cold and moist, and therefore not good. Being eaten raw with Oyl, Pepper, Salt and Vinegar provokes Urine, sharpens the Appetite, opens and cools the Liver, and helps the Chest and Lungs that are inflamed.

5. *The Parts for Use.*

When Cucumbers are very young and pickled, 'tis usual to eat the out-side Rind of the Fruit with them; but when they are largely grown, as fit for slicing, to be either fried, stew'd or eaten raw, they are generally pared, and then used. 'Tis a very great Custom amongst a great many People to make choice of the very largest Cucumbers, believing them to be the best, which are not, but instead thereof, are the very worst, except such as are quite yellow. Therefore in the Choice of Cucumbers, I recommend those that are about three Parts grown, or hardly so much, before those very large ones, whose Seed are generally

generally large, and not fit to be eaten, excepting by such Persons whose Stomachs are very hot.

6. The Quantity to be eaten is at Pleasure.

But herein observe, that 'tis better to eat too few, than too many; and if your Stomach will bear, to eat a good many Onions sliced amongst them, 'tis much better than to eat them alone.

7. Their Cultivation.

The Cucumbers that are eaten in this Season, being raised on Hot-Beds, I shall now proceed to give proper Directions for the Performance of the same as practised by every good Gardiner, who raises this Fruit.

The first Work to be done, is to prepare a Parcel of fresh Horse-Dung and Sea-Coal Ashes, as directed for the forcing of Asparagus, Sect. II. and about the End of *December*, or Beginning of *January*, make a very strong Bed, of such a breadth and length, as may exceed the Bigness of your Frame about six Inches all round, and three Feet and a Half or four Feet high, when settled. And in the making of this Seed-Bed, observe that the Dung be equally settled with the Fork, but not trod down, as is usual, for that causes the Bed to fire and burn very much on a sudden, which when over loses its Heat presently, and chills the Plants: Whereas on the contrary, if a Bed be made, as directed for the forcing of Asparagus, its Heat will come gradually, and endure a very long Time.

About two Days after the Bed is made, place on the Frame and Lights, and six or eight Days after that, earth the Bed with dry, rich, light Mould, preserv'd from the Winter's Rain in some Out-House, &c.

The Thickness of Mould need not exceed seven or eight Inches, which, the Day after earthing, will have received a sufficient Heat for the sowing of your Seed, which is best done in little Drills about an Inch deep, at about two Inches asunder; and if the Weather is not very cold, I would advise that you cover the Lights every Night very thinly; for as the Bed is now coming into its Heat, if you should cover very thick, as many do, you would set the Bed on fire by drawing its Heat up so very hastily, which close covering never fails of doing.

The Heat of your Bed being moderately drawn, will cause the Seed to appear above Ground about the fourth or fifth Day after sowing, at which Time give them all the Air and Sun that is possible, so as not too much, whereby you may lose your Plants by too much Air, which is of as bad a Consequence as when they are stifled for want of Air; which is discover'd by their being of a very pale Colour, instead of a lively Green, and very much drawn up and long stem'd.

The only Care that is now to be taken, is more to defend them from cold Air, and to strengthen, than to draw and force them. And during all this Work, great Care must be taken to wipe away the cold Steam, which by the Morning is condensed into Water, hanging in Drops on the Glasses, which is best performed by a Woollen Rag, &c. This cold Steam is present Death to every Plant it falls on, and therefore great Care must be taken to prevent its ill Effects. If your Lights are well made and firm, 'tis sufficient if you turn the Glasses instead of wiping them; and indeed is much the better way, because 'tis sooner done, and the Bed less exposed to the Air. If you find that the Bed heats very much, and a great Quantity of Steam arises, 'tis best to abate the Covering, and to give a little Air in the Night; for in short, if they have not good Air, they are soon destroy'd: And in the Day Time, when the Sun shines very freely, be sure that they have sufficient Air, or otherwise the Steam that is then drawn up, will immediately kill them.

In the giving Air to Cucumbers, observe that 'tis given in such Parts of the Frame, where the Wind cannot affect the Air of the Bed, which oftentimes kills the Plants.

These Directions being duly observed, your young Seedlings will thrive with good Success, and become very good Plants.

When they begin to shew their third Leaves, they must be transplanted into small Flower-Pots or Baskets, of seven or eight Inches Diameter, and four or five Deep, as directed by Mr. Bradley, in his *New Improvements*, Part III. Page 118. at about four Inches apart, placing four Plants in a Basket or Pot: And as Mr. Bradley observes, that of the two, the Baskets are the best, being made open on their Sides with Oziers: I do also recommend the same, in regard to their great Convenience in removing Plants from one Bed to another, as they decrease in Heat, without any ways disturbing the Roots of the Plants,

which cannot be avoided when they are grown too large for the Pots; and besides, if a Bed happens by Winds suddenly to work and heat, and thereby scald or burn, the Baskets, tho' very hot, are instantly cool at raising up, which Pots are not, for they retain the burning Heat a long Time.

The Baskets are best when made with young Oziers, which must, before they are used, be cast into scalding or boiling Water, to prevent their growing when in the Hot Bed.

Your Plants being thus managed, will be very close jointed, if you have allow'd them sufficient Air: And when they are arrived into their second or third Joint, make a good strong Ridge of about three Feet in Height when settled, which when its Fury of Heat is over, as will be in about ten Days or a Fortnight after making, then earth it in those Places where your Plants are to stand for good, and the next Day afterwards place or plant your Baskets of Plants therein, at the Height of seven Inches above the Dung; and at the same Time observe to cover the other Parts of the Ridge with Earth very thinly, to prevent the Steam of the Dung rising, which is present Death to those Plants at all Times. When you find that the Earth of your Bed grows dry, 'tis necessary to give the Plants Water, which prepare by its standing one Night within the Frame, before 'tis used, as directed for Asparagus forced, Sect. II.

Having thus transplanted your Plants for good, observe the Temperature of the Bed, and as its furious Heat declines, make good the remaining Earth within the Frames, always remembering to allow them sufficient Air, and that they are not any ways affected by the cold Steam within the Bed, or by any which may arise from the out Parts, which may be prevented, by covering the Dung from whence it arises, with any common Earth or Mould.

Your Plants being thus govern'd, will soon make great Progress; and that they may break out in many Runners, from which comes the Fruit, 'tis best to pinch or cut off with a Penknife the third or fourth Joint of every Plant, always observing to peg down every Runner, that they may not be burnt or destroy'd by the Glass (which too often happens) when their tender Shoots bear against it.

The Fruit springs forth from between the Stalks and Leaves, and appears very large before that the Blossom at its end opens; and when these Blossoms blow strong and large, 'tis a very great proof of the Vine being in a good State of Health: So also 'tis to be observed in young Plants, when they hold their Seed Leaves with Strength and good Colour. And besides these Blossoms produced at the end of the Fruit, there are others, which grow at the Joints, called false Blossoms, which never produce any Thing; and are therefore by Gardiners picked off, as soon as ever they appear, to prevent their drawing any Nourishment from the Vines, which is supposed to prejudice the Fruit belonging thereunto.

As to Mr. *Bradley's* Opinion of the male Dust contain'd in these male Blossoms, and convey'd by the Air or Wind, to the female Blossoms at the end of the Fruit; I am not so good a Philosopher, as to confirm or speak one Word of the same. Perhaps it may be so, and that he may have seen, and been privy to such like Sports more than I have as yet thought on; but I can affirm this for Truth, as also can many good Gardiners at *Twickenham* and other Places besides; That I have raised many a good Crop of Cucumbers in very great Perfection, on whose Vines I never suffer'd one single false (or male) Blossom to open, or even attain one fourth part of its Growth; for as soon as ever they appear'd, I instantly displaced them (as every good Gardiner always does) and never could observe, that for want of their familiar Conversation with the female Blossoms at the ends of the Fruit, did ever lose one single Cucumber thereby: However as I am not so proper a Judge of Procreation, as Mr. *Bradley* may be, I shall submit to his better Judgment.

When your Vines are tolerably grown, and several Fruit set, be careful that they are not check'd, or starved for want of Water, which will cause the Fruit to be both deform'd and of a bitter Taste: And as the Vines make their Progress, stir up the Surface of the Earth at the Ends of their Shoots very gently, that their tender Roots may the easier strike therein; for the Nature of the Roots of a Cucumber is such, as to extend themselves as far from the main Stem within the Ground, as the Vines do without. The extension and size of the Roots, and Vines of every Kind of Cucumber, is always in proportion

to the magnitude of its Fruit; as for Example: The *Turkey* Cucumber, whose Fruit is very large, produces a much larger Vine, and extends it self much farther than the long prickly Cucumber, and that also much larger, and of greater extent, than the short early prickly Cucumber.

Therefore seeing that every different Kind of Cucumber is of a different Growth; great Care should be taken in their Planting that they are dispos'd of, at such Distances, as is proper and suitable to their respective Growth.

The different Growth of Cucumbers being thus considered, as to their Distance, each Hole from one another; we should also consider the number of Plants necessary for each Hole according to their difference of Growth; for was we to place but one or two at most of the short prickly Cucumber Plants in one Hole, which is fully sufficient for the *Turkey* Kind, we should not receive a half Crop; and on the contrary, if of the *Turkey* Cucumber we plant three or four Plants, as is usually done with the prickly Kind, their Vines would rob one another of their Nourishment, and run into Confusion.

'Tis observable, that new Cucumber Seed draws a much greater Nourishment, and is less fruitful, than such Seed as is six or seven Years old, their Vines being more luxuriant, and less prolifick, with their Joints at a very great Distance; which in old well sated Seed, are very close and nearly situated together. Now in order for the Discovery of the Cause, why old Seed should produce a much better Crop of Cucumbers, than new Seed, I have made the following Experiment, wherein I have discovered the Cause.

Having early in the Year made choice of the very best and earliest Cucumbers that came to perfection in the Spring (which must always be observed, and not delayed to the latter part of the Crop, when the Fruit has not half its Strength and Goodness) to save Seed from when rotten ripe; I then washed it out and dried the same in the Sun, and put it into a Seed Bag, very secure from Mice, which are great Lovers of this kind of Seed, and therefore must be carefully guarded against.

This being done, I took part of the Seed, and caused it to be sewed up in a small Linen Bag, which about the beginning of *August* I put into the Watch Pocket of my Breeches, wherein it remain'd till the end of *December* following; at which
Time

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Time I took it out of the Linen Bag, and observed that it had shrunked very much, and was become very hard. And having prepared a Seed Bed, I sow'd the same, as also some of the same Seed, as was kept in my Seed Drawers, and others of eight Years old, of the same Kind. The Seed that was kept in the Seed Drawer, of one Year's Age, came up immediately: But the others, *viz.* That of eight Years old, and that of one Year preserved in my Pocket, as aforeaid, did not come up within two Days after the first, and were much weaker: However, being very eager to satisfy my Curiosity herein, I gave them an equal Attendance in every part of their Government, and at length found, that the Seed of one Year's Growth, kept in the Seed Drawer, produced very large Vines, and little or no Fruit; but the Seed of one Year, which I preserved in my Pock, produced rather a much better Crop, than that which was eight Years old: From which it appear'd, that the moderate dry Heat of my Body, communicated to it when in my Warch Pocket, had the very same Effect as when gradually dried by time in the Term of seven or eight Years.

When hot Beds or Ridges decay very much in their Heat, let them be lin'd as before directed for Asparagus, Sect. II. and when many Ridges or Frames are placed before one another, cut away as much of the old Dung as is necessary, and fill up the Alleys or Spaces between, even to the top of the Ridges, with fresh Horse Dung, covering it with indifferent Earth, to prevent the Steam from rising, which (as I said before) is destructive to your Plants.

The less that their Vines are disturbed on any Account, the better for the Vessels which convey the Juices to the Fruit, for being very tender, they are easily bruised and prejudiced by every Accident, &c. that causes their removal.

The more Shade every Fruit possesses, the better it grows; for when Fruit of any Kind is fully exposed to the Sun, before they have done growing, the direct Beams of the Sun dry and pinch the Vessels of it, (as Mr. *Bradley* observes) that the Sap cannot pass with such Freedom, as in those Fruits growing in the Shade, whose Vessels are open and free: Therefore always remember that the immediate Heat of the Sun is only necessary for the ripening the Juices of Fruit, when fully grown, and giving its natural Colour, and not for the Growth of it, as many have thought.

When

When a Bed grows cool, if under the Vines you cover it with Moss, so as not to disturb or damage them, 'twill draw a fresh Heat, and endure a long time.

Whenever you water Cucumbers, be careful that the force of the Water do not displace their Roots, and that you wet their Leaves as little as possible, which Work is best done in an Evening, and thereby will be dry by the Morning: And if the Weather is warm in *March* or *April*, and inclinable to Rain, take off the Lights, and let them have a gentle Shower; 'twill add very much to their Increase and Welfare; after which lay on the Glasses, which will draw up a fresh Heat to the Moisture then received, and cause them to flourish and thrive greatly.

This first Crop is generally preserved by the Frames to the very last; and that your Table may not be destitute of a second Crop, to succeed the first, 'tis highly necessary and very commendable to sow a second Crop, at the back of your Frames, about the middle of *February*, and a third Crop about the middle of *March*; both of which, when in the second or third Joint, may be transplanted out for good on Ridges, and preserved with Bell, or square Glasses, instead of Frames, being shaded with Mats for the space of a Day or two after Planting, till they have struck Root, and able to endure the Sun; as also every Night to preserve them from the Cold.

N. B. That these Ridges need not be made so very strong, as directed for the first Crop.

N. B. That the sowing and transplanting of Melons has no sort of difference from that of the Cucumber: Therefore whoever are Lovers of this noble Fruit, may sow their Seeds about the middle of *February*, and order them, in every Respect, as the second Crop of Cucumbers, the pruning of their Vines, and manner of watering excepted, which is thus performed.

1. *The Manner of Pruning.*

When your Plants are in the second Joint, cut or nip that off, and 'twill cause two other Runners to break out from the Stem, at the Seed Leaves, which stop at the third Joint, and all others also, as they come forth.

This Method being duly observed, will cause the Vines to throw out great plenty of Fruit, which when set, stop the Vine whereon it grows, at two or three Buds or Joints beyond the

Fruit, which will cause it to grow away with good Success. The nearer the Fruit is set to its Root, the better; because the Sap is not so much spent in a short Passage from the Root, as when it has a long way to travel before it arrives at the Fruit, when the Fruit sets very remote from the Root, as at the very extreme part of the Vine.

It often happens in both Melons and Cucumbers, as well as in Fruit Trees, that there are many very weak Shoots or Vines, which are called water Shoots, never producing any Thing more than Leaves and false Blossoms, which greatly rob the Fruit of its Nourishment, and therefore ought to be pruned away.

Melons in general require a much lighter dryer Earth, and a greater Heat than Cucumbers do, which delight in frequent Refreshings of Water, and will not thrive without it. In the watering of Melons, observe that you place a Bell Glass over their Roots, to prevent the Water coming to them, which instantly causes them to canker or rot, and soon die; and at all Times 'tis very necessary to preserve their Roots as well from the cold of the Night, as the Rains also.

The Nature of a Melon is such, that when their Fruit is set, they delight to be shaded by their Leaves, to have moderate Waterings when the Earth is extreme dry, and not to be kept very moist, which causes their Fruit to have a watery and insipid Taste.

As soon as the Fruit is fully grown, it cannot be too much exposed to the Sun; and that it may receive the very greatest Advantage thereby, I advise that a Bell or square Glass be placed over the Fruit, which should be laid on plain Tiles, and turned every Day till ripe, which is known by their agreeable Odour, as well as by the small Cracks about the end of the Stalk, as if it was separated from the Fruit in order to be discharged; having then perform'd its great Office. When Melons are to be sent ten, twenty, or thirty Miles, 'tis best to cut them a Day or two sooner than when ripe, and to be eaten immediately; and in the cutting of a Melon observe, that you cut its Stalk to the length of one Joint at least, with a Leaf or two also: It adds a great Beauty to the Fruit when at Table.

To enumerate the several Kinds of Melons would be too tedious a Task, and not any way serviceable: Therefore I shall only add, that the very best are those of a middling Size, and not

not those as large as Pumpkins, which by many are most valued, for want of better Judgment therein.

The *Melon* is called in *Greek* μήλον, viz. An Apple, in *Latin* Melo, in *Italian* Mellone, in *Spanish* Melon, in *High Dutch* Melaun, in *Low Dutch* Meloenen, in *French* Melons, and in *English* Melon, or Musk Melon.

The Meat of the Musk Melon is very cold and moist, and much harder of Digestion than the Cucumber; and when any Person eats too much of it, it lies very long in the Stomach, and very often causes *Agues, Fevers, &c.*

The *Italians* and *Spaniards*, who have them in much greater Perfection than we can in *England*, are said to eat them, more to repress the rage of Lust, than for any medicinal Virtue.

S E C T. XVI.

Of Elder Buds and Flowers.

1. Its Names.

THIS Tree is called in *Greek* ἀκτὴ, in *Latin* Sambucus, in *High Dutch* Holunderholder, in *Low Dutch* Vlier, in *Italian* Sambuco, in *Spanish* Sauco, Sauch, Sambugueyro, in *French* Hus and Suin, in *English* Elder or Elder Tree, bearing large Bunches of black Berries which are ripe in September.

But besides this black Elder, there is another Kind, which produces white Berries, called by divers People *Sambucus Sylvestris*, wild Elder; but *Matthiolus* calls it *Montana* or Mountain Elder.

2. To give a Description of Elder would be needless, seeing that 'tis known by every Boy that uses a Pop-gun.

3. Its Temperature.

The Temperature of Elder, according to *Galen*, is of a drying Quality, and moderately digesting.

4. The Medicinal Virtues.

The tender Buds and Leaves of Elder, boiled in Broth or Soup, open the Belly, purge all manner of slimy Phlegm,

and cholerick Humours; as also doth the middle Bark, but in a more violent Manner.

The Leaves pounded with Deers Suet are good for hot Swellings and Tumours, and greatly help the Gout.

The inner and green Bark is a very strong Purge; being stamp'd, and the Juice press'd out and drank in Wine, is very good against Choler and watery Humours, and especially the Dropsy.

The Flowers gathered in *April* or *May* and dried, being steep'd in Vinegar, are very wholesome for the Stomach, sweeten the Blood, create an Appetite, cut, and make thin all gross and raw Humours.

5. *The Parts for Use.*

The young Buds and tender Leaves for Pottage.

The Flowers being dried for Vinegar, and

The Berries, which are ripe in *September*, for Syrup or Wine; of which Kinds, the white is the most agreeable for Wine, it being free from that very strong Taste which the black Elder much abounds in. About five Years ago I drank part of a Bottle of white Elder Wine, made by that *ingenious* Nursery Man, Mr. *Peter Mason* of *Isleworth* in the County of *Middlesex*, which was so very soft, and of such a delicious Taste, that 'twas judged by many, who were competent Judges of good Wine, to be as good a White Wine as they had ever tasted before: And 'tis a very great pity that this, as well as many other *English* Wines, are not propagated much more than have hitherto been done.

6. The Quantity of Buds or Leaves, to be used in Pottage, must be a proportionable part with other Soup Herbs: And the Flowers for Vinegar are at pleasure; as also are the Quantity of Berries for Wine.

7. *Its Cultivation.*

Both Kinds of Elder are increased by Slips or Cuttings, and will thrive in any sort of Land that is tolerably good, and are often found growing wild in Hedges, Woods, &c.

And altho' 'tis but very little regarded by Gardiners, yet I am well assured, that were they to plant it in Hedges, running *East* and *West*, it would not only be a great Preservative, by breaking

breaking off the cold *Northern* Winds from their tender Plants; but by its Produce of Flowers and Berries, would turn to a very great Account also.

S E C T. XVII.

Of Garden Endive.

1. Its Names.

ENDIVE is called in *Greek* Σέρις ἡμερος, in *Latin*, *Intybum sativum*, and of some *Endivia*, in *Italian* *Scariola*, in *Spanish* *Serraya Enuide*, and in *English* *Endive*.

2. The Description.

Garden Endive is a Sallet Herb, whose Leaves are very long and narrow with jagged Edges, and something curling, like unto the curled Endive; but the Leaves are much larger; from which in the Spring rises a round and hollow Stalk, divided towards the upper part into many small Branches, which being broken, immediately issues out a great Quantity of Sap, like unto Milk, but of a bitterish Taste.

On the extreme parts of the Stalk its Flowers are produced, which are of a blue (and sometimes a white) Colour: The Root is long and white, with small Fibres breaking out of its Sides, which in general die as soon as the Seed is ripe.

3. Its Temperature.

Endive is cold and dry, in the second Degree, and being something bitter, doth cleanse and open.

4. Its Medicinal Virtues.

This Herb being eaten raw in Sallet with Oil and Vinegar, &c. comforts weak and feeble Stomachs, cools and refreshes Stomachs over heated, cools the hot burning of the Liver and opens its Obstructions, causes Sleep, and is very good in hot burning Fevers.

5. The

5. *The Parts for Use.*

The tender Leaves, when blanch'd as hereafter directed.

6. The Quantity or Proportion in a Sallet is generally two Roots in small Sallets, and more in larger, at Pleasure.

7. *Its Cultivation.*

Endive is an excellent Winter and Spring Sallet, and highly deserves our Care, in respect to its excellent Virtues before described.

It loves a very rich Soil, and must be sown about the beginning of *May* for the first Crop; the beginning of *June* for the second, the beginning of *July* for the third, &c. When it has grown in the Seed Bed to a tolerable good Size, transplant it in Beds, or in single Rows between your *Sellery* at about eight Inches apart; and when 'tis well grown, take some Bast-mat, and tye some of it up, viz. as much as may be required in a Week's Use, and the next Week after tye up the like Quantity, and so on during the whole Season: But whenever you tye any up, be sure that 'tis perfectly dry, or otherwise 'twill immediately be rotten and disappoint you of your Hopes.

The Ancient's Method for blanching of Endive was as follows. First, They sow'd their Seed in *July* and *August*, from which came very good Plants, which would endure the Winter, and were planted out at about the Distance of seven or eight Inches, as practised by the modern Gardiners: And when the Winter came on, that the Endive had done growing, they used to take it up in a very dry Day, and bind up the Leaves together, with small Withs or Bast-mat, and then bury it in the Ground with the Roots upward, to prevent the Earth's getting amongst the Leaves, which would instantly rot them; and as they had Occasion for them during the Winter, they used to take them, even at any Time, either in Frost, Snow, &c. when they were finely blanched, and in greatest Perfection.

This manner of preserving Endive is certainly the very best, for let the Winter have ever so much Snow, Rains and Frosts, which soon destroy this Sallet Herb, it cannot any ways affect, or damage their Leaves, being buried as aforesaid.

S E C T.

SECT. XVIII.

Of Fennel.

1. Its Names.

FENNEL is called in *Greek* *μαραθρον*, in *Latin* *Marathrum* and *Feniculum*, in *Italian* *Finocchio*, in *Spanish* *Himbio*, in *High Dutch* *Fenckell*, in *Low Dutch* *Venckell*, and in *English* *Fennel*. Of Fennel there are two Kinds, *viz.* The common and the sweet Fennel, which last, in the Space of two Years, will degenerate and become common Fennel.

2. The Description.

Both these Kinds of Fennel being perfectly known to every one, need no Description.

3. Their Temperature.

Hot and dry in the third Degree.

4. Their medicinal Virtues.

The tender Suckers being eaten in the Spring as a Sallet, are very good for the Lungs, Liver and Kidneys, opening their Obstructions and comfort the inward parts. The Seed drunk in Wine, expels Wind, eases the pain of the Stomach, and prevents Retchings to vomit. The green Leaves, being eaten in Sauce with Mackerel, &c. cause great Quantities of Milk in the Breasts of Women who suckle young Children.

The Decoction of Fennel drunk, provokes Urine, eases the Pain of the Kidneys, and is very good against the Stone; as also are the Roots, being boiled in Wine and drank, and are likewise very good against the Dropsie.

5. Their Parts for Use in Sallets or Sauce.

1. The Stalks and Suckers, whilst young, for Sallets, being peeled and eaten as Sallery, and
2. The green Leaves for Sauce, &c.

6. The

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6. The Quantity of young Shoots in an indifferent large Sallet to be about ten, but the green Leaves are at Pleasure.

17. *Its Cultivation.*

Both kinds of Fennel delight in good mellow deep Land, and are increased by Seed sown in the Spring, which was ripened at the end of the preceding *August*; or it may be increased by dividing the Roots, which are lasting for many Years.

In the Spring, before the Root puts forth its tender Shoots, cover the Top about six Inches thick with Earth, which will blanch the young Shoots, as they make their Way through it, and will be fit for Use as soon as above Ground.

S E C T. XIX.

Of Garlick.

1. *Its Names.*

GARLICK is called in Greek *αρόδοον*, in Latin *Allium*, by the Germans *Knoblauch*, in Low Dutch *Look*, in Spanish *Aios*, *Alho*, in Italian *Aglio*, in French *Ail* or *Aux*; the Bohemians call it *Czesnek*, and the English *Garlick*, or *Poor Man's Treacle*.

2. *Its Description.*

Garlick is a bulbous rooted Herb, covered with very thin Skins, (finer than Gold-Beater's Skin) of a very light white Colour towards the Bottom, (from whence the fibrous Roots break forth) and of a very light purple towards the upper Part or Bud, from which ascends the Stalk; the Bulb, or Root consists of many small Cloves, which have a general Communication at the Bottom of the Bulb: The Leaves are green, and in form much like unto those of the Leek.

At the end of two Years its Stalk springs up, (as aforesaid) bearing at its end a little Pod, which when open'd produces a tuft of Flowers, covered with a white skinny Substance, wherein, when ripe, are round black Seeds, but are never saved for any use.

3. *Its Temperature.*

Garlick is of a very sharp, hot and dry Nature, in the fourth Degree, according to *Galen*.

4. *Its Medicinal Virtues.*

It being eaten, heats the Body very much, attenuates thick and gross Humours, cuts such as are tough and clammy, and consumes them; opens Obstructions, and is a very great Enemy to cold Poisons, and bitings of venomous Beasts, for which Virtues, *Galen* called it *Theriaca Rusticorum*, or the Husbandman's Treacle.

It greatly helps an old Cough, provokes Urine, breaks and consumes Wind, and is very good for a Dropsie proceeding from a cold Cause. It kills Worms in both Men and Children, being eaten raw by Men, and boiled in Milk for Children.

'Tis a very great help to a cold Stomach, and is a very great Preservative against Contagions and Pestilence.

5. *The Parts for Use at Table,*

Are the Cloves, more to rub the Plates withal to give a Relish to the Meat, than to eat the Cloves themselves.

6. The Quantity is at Pleasure.

7. *Its Cultivation.*

Garlick is very easily increased from the Cloves of its Root, which is best done in *March*, being then planted in light sandy Loam, (rather than stiff cold Land, wherein it will not thrive) in a Border, about five or six Inches square from one another; and in *July*, when the Leaves turn yellow, the Roots must be taken up, and very well dried in the Sun, otherwise they will soon rot, as will all other Roots that are to be kept the Winter, if not well dried at first taking up.

N. B. That *Rocambole*, by some called *Spanish Garlick*, is a very useful Vegetable, and is much esteemed for its high Relish in Sauces. The Parts for Use are the small Cloves or little Bulbs, contained in the Head of the Stem. It delights in
H a light

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a light fresh Land, and is propagated by planting the Off-sets of the Roots in *March*, as directed for Garlick.

Eschalots, or Shallots, being of the same Family with the Garlicks, are therefore annexed hereunto.

They are of great Use in Sauces, and therefore a Kitchen Garden ought not to be without them. They delight in the same Land as the Rocambole, and are propagated in the same Manner.

About the Beginning of *July* their Blades will turn yellow, and ought then to be taken up, well dried, and laid up for Use.

N. B. That a Border of four Feet wide, and about thirty five or forty Feet long is sufficient for a very large Family.

S E C T. XX.

Of Hop Tops, or young Hops.

1. *The Names.*

OF Hops there are two Kinds, the one called *Lupus Salictarius*, the manured Hop in Hop Gardens, and the other *Lupulus Sylvestris*, the wild Hop; in *High Dutch* they are called *Hopffen*, in *Low Dutch* *Hoppe*, in *Spanish* *Hombrezillos*, in *French* *Houblon*, and in *English* *Hops*.

2. *Their Description.*

The Garden Hop being so universally known, needs no sort of Description; and the wild Hop, having little or no Difference from the Garden Hop, excepting that its Leaves and Blossoms are much lesser, which I suppose to be caused by its not being cultivated as the other, is also needless to describe; knowing that there are but few Boys in the Country, but are well acquainted with Hops and Hop Tops.

3. *Their Temperature.*

The tender Shoots or Tops, Leaves and Flowers of Hops, are hot and dry in the second Degree.

4. *Their*

4. *Their Medicinal Virtues.*

The tender Sprouts or Tops being boiled, and eaten as Asparagus, cleanse the Blood, provoke Urine, and comfort the Entrails.

5. *The Parts for Use,*

Are the young Shoots or Tops gathered in *March* and *April*, when they first come up, and about eight Inches in height above Ground.

6. The Quantity to be eaten is at Pleasure.

7. *Their Calculation.*

The Hops from which the young Shoots are gathered, are generally from those that grow wild in Hedges, and do naturally love a very rich fat Soil. To lay down proper Directions (in this Place) for the Propagation of Hops, for the sake of their Flowers only, would be a Subject very foreign to our purpose, therefore I shall omit that for the present, and pursue our other Sallet Herbs, as they come in order.

S E C T. XXI.

Of Lettuce.

1. *Its Names.*

CABBAGE LETTUCE is commonly called *Lactuca capitata*, and *Lactuca sessilis*. *PLINY* calls it, *Lactuca Lacconica*: *Columella*, *Lactuca Bætica*: *Petrus Crescentius*, *Lactuca Romana*, and in *English Cabbage Lettuce*.

But besides this common Cabbage Lettuce, there are many others which cabbage very well, as the *Capaseen Lettuce*, the *Brown Dutch Lettuce*, the *Roman Lettuce*, the *Imperial Lettuce*, and the *Silesia Lettuce*: To which I may add divers *French*, and *Gofs Lettuces* which are extreme good, and cabbage very well with a very small Assistance of the Gardiner in tying them close up.

New Principles of Gardening.

To make a Description of the several Sorts of Lettuce is needless, in regard to their being so well known to every Person.

2. *Their Temperature.*

All Kinds of Lettuce are moderately cold and moist.

3. *Their Medicinal Virtues.*

This Sallet being eaten raw, allays Heat, Choler, Thirst, excites Appetite, and represses Vapours; and when boiled and eaten in Soup, or (as Spinach) with Meat, makes the Body loose and open.

4. *The Parts for Use,*

Are the young Lop Lettuces sown on gentle Hot Beds, as before directed for Chervil, Sect. viii. and Cresses, Sect. xiv. or such Lettuces as have endured the Winter, which were sown the *August* before.

5. *The Quantity in a Sallet.*

Of whatever Number and Kinds of Herbs the Sallet is composed of, the Quantity of Lettuce ought to be equal to one of those Parts, *viz.* If composed of three Kinds, to be one third part, if of four Kinds, one fourth, &c.

6. *The Cultivation.*

The best Sort of Lettuce, for the Service of these three Months, is the Brown *Dutch* Lettuce, which if sown in *August*, may be transplanted out in *September* for good, and is best when in a light rich Loam, under a *South* Wall. And for small Lettuce in Salleting, the Lop Lettuce sown on a Hot Bed, as before directed, is as good as any other Kind.

To have Lettuces cabbaged very early in the Spring observe the following Directions, *viz.* About the middle or end of *August* sow Brown *Dutch*, *Imperial* and *Silesia* Lettuce in the Border of a *South* Wall, which will be fit to transplant out for good about a Month or five Weeks after sowing, provided that you keep them moist by Refreshings of Water given in a Morning, if the Season is very dry.

N. B. That the Reason why I advise their being water'd in a Morning is, in regard to the Coldness of the Nights which
often

often happen at this Time, which if water'd then, would rather chill and check the Growth of the Plants, than forward them; and the like of all others.

Your Plants being of a sufficient size for transplanting, dig up a *South* Border, that is very rich and of a light Nature, wherein plant your Lettuce; the brown *Dutch* at six Inches, the *Silesia* at nine Inches, and the *Imperial* at a foot Distance from each other, and the nearer you plant them to the Wall, the easier you may preserve them in Snow and frosty Weather, by covering, &c.

And altho' I did not before take Notice of the *Capaseen* Lettuce, yet we must not forget to sow some of that at the same Time; for 'tis a beautiful yellow, well tasted Lettuce, and one of the first which cabbages in the Spring.

And as these several Kinds of Lettuces differ in their height, we should therefore consider how to dispose of them, in such a manner that they may all receive an equal Benefit of the Winter's Sun.

First then the *Imperial* being of the greatest Growth, ought to possess the back or hindermost part of the Border, next the Wall; and in the next Line before that, the *Silesia*; next before that, the Brown *Dutch*, and lastly the *Capaseen* Lettuce without.

N. B. That about the middle of *September* you should sow a second Crop to succeed the first, which, when planted out, may be so planted, as to be help'd forward, and shelter'd from bad Weather, by the Assistance of Bell and Square Glasses, which at those Times are of no other Use.

N. B. Also, that the *Roman* Lettuce is more tender than the preceding Kinds, and will seldom bear the Frosts, so that we very rarely make use of it for this Season.

About the middle of *February*, when our hot Beds are grown too cold for our Cucumbers, sow therein Brown *Dutch*, *Silesia* and *Imperial* Lettuce, which by the middle of *March* may be transplanted out on some other decay'd Bed, or a new one made very weak on purpose, under Square or Bell Glasses, and they will be finely cabbaged and fit for the Table in *April*.

The Cabbage Lettuce which is sown in the Autumn, and cabbages in the Spring, is certainly very good; but nothing near so fine as that raised early in the Spring, as before directed, whose Leaves are in general tender, and much easier for the Stomach,

Stomach, which the others are not, being harden'd by the Winter's cold.

In *March* all the Kinds of Lettuce are sown in the open Ground amongst Carrots, Parsnips, &c. which should be repeated in every Month, or rather oftner during all the Summer Season, that we may always have a constant and plentiful Supply of them.

It is observable, that if you leave Lettuce Plants in the Seed Bed, and suffer them to grow therein to their greatest Perfection, they never are near so well cabbaged, as the others which were drawn from thence and transplanted: Therefore 'tis evident, that transplanting of Lettuce contributes greatly to their cabbaging.

The Lettuces of any Kind whatsoever, which are design'd for Seed, are best when planted under a Wall or Pale, that when the Stalks are in Bloom, they may be tacked thereunto with a Nail and Thread, which will not only preserve them from being annoy'd by Wind, but greatly helps the Seed in ripening, when the Season is very wet and cold, as oftentimes happens.

N. B. That such Lettuces as produce large and fine Cabbages early in the Spring are those that must be chosen to let run for Seed; and altho' you make choice of the very best Plants for Seed, yet notwithstanding those Seeds will degenerate, if often sown in the Earth wherein the mother Plant grew: Therefore to prevent such Degeneration, the only Method is, to keep changing the Land wherein 'tis sown, which may be done, by being sown in different Parts of your Garden, or by exchanging the same Kind of Seed, raised in some other Garden, by an honest Brother Gardiner, whose Care and Word may be depended on.

N. B. That the *Imperial* Lettuces, designed for Seed, must have their Cabbages cut on the top, at right Angles, or thereabouts, to give leave for the Stem to rise: But make not the Incisions so large as to let in the Rains, which will instantly rot the Plant: Therefore a very small Incision is sufficient.

All Lettuces shew a Kind of a Down on their Seed Pods, when their Seed is ripe, at which Time they should be pull'd up, and set to dry, in a *Tool-house*, *Green-house*, &c. and then rub'd or thrash'd out, and kept for use.

SECT. XXII.

Of Leeks.

1. *Its Names.*

THE Leek is called by the Grecians *πράσον*, in Latin *Porrum*; but Palladius in the masculine Gender calls it *Porrus*; the Germans *Lauch*, the Spaniards *Puerro*, the French *Porreau*, and the English *Leek* or *Leeks*.

2. *Its Description.*

The Leaves of the Leek are of a very dark green, and in Form somewhat broad, and very long; having a Keil or Crest in the backside, and in Taste and Smell are something like unto the Onion.

The Stem rises from the midst of its Leaves, which also rise with it on the Sides, bearing on the top a globular Head of small Flowers which are succeeded by black Seed, very like unto that of the Onion.

The Bulb or Root is long and slender, and especially when 'tis not transplanted. Therefore to have Leeks with very large bulbous Roots, Care must be taken, that they may be transplanted into a rich and light Soil.

3. *Their Temperature.*

Hot and dry.

4. *Their Medicinal Virtues.*

The Root being boiled, brings up raw Humours that offend the Chest. A quarter of an Ounce of Leek Seed, with the like weight of Myrtle Berries, being beaten and drank in Wine, stop the spitting of Blood, which has continued a long time, and is an excellent Remedy against gross and tough Humours.

5. *Its ill Effects.*

Leeks being hot and dry, ingender bad Blood, offend the Eyes, is very bad for those that are by Nature hot and chole-
rick, and with some is very disagreeable to the Stomach.

6. *Their*

6. *Their Parts for Use.*

The bulbous Root, and hard part of the Stem, with some of the tender Leaves.

7. The Quantity is generally at Pleasure, being chiefly eaten in Spring Pottage, which may be made in less or greater Quantity as desired.

8. *Its Cultivation.*

The Leek (as I observed before) delights in a light rich Soil, and is sown in *March*, either in Borders to be afterwards transplanted out or thinly in Quarters, to remain there, and be houghed out as Onions, at about four or five Inches apart.

But the best Way is to transplant them in *July* at the afore-said Distance, which will very much contribute to their largeness; and if possible, make use of wet Weather at planting; for 'tis much more natural to every sort of Vegetable, than any Water that can be given to them: However if the Season proves dry, they must be plentifully watered at planting.

The Seed (as before said in its Description) is not produced till the second Year; and as soon as the Seed Vessels begin to open, cut off the globular Heads of Seed, and tye them up with Lines to the Cieling, so that their Heads may hang clear of one another, and be the sooner dry, at which time the Seed may be beaten out of its Husks, and kept for Use in a very dry Place, free from Wet, Damps, &c.

S E C T. XXIII.

*Of White Mustard.*1. *Its Names.*

MUSTARD, is called by the *Athenians* *νάρυ*, in *Latin* *Sinapi*, by the *Germans* *Senff*, by the *French* *Seneue* and *Moustarde*, in *Low Dutch* *Mostaert Saet*, in *Spanish* *Mostaza* and *Mostalla*, the *Bohemians* *Horcice*; *Pliny* calls it *Thlaspi*, and some others *Saurion*.

2. Its Description.

The Leaves of the white Mustard, when fully grown, are large and rough, like unto those of the Turnep, but much rougher, and not near so large. The Stalk is round, rough and hairy, divided into many Branches, which produce yellow Flowers, that are succeeded by long, slender, rough Cods, wherein is contained round Seed, which, when ripe, is of a whitish Colour, something inclining to yellow, being very sharp and mordicant.

Besides this Kind of Mustard, there are two other, the one called *Sinapi Sativum alterum*, Field Mustard, whose Stalks and Leaves are in Form like unto the preceding, only smaller, and are more white and rough. The Flowers are also yellow, but the Seed is brown like unto Rape, and not quite so biting as the former. The other Kind of Mustard is called *Sinapi Sylvestre*, wild Mustard, whose Leaves are like those of the Shepherd's Purse, but rougher and more deeply indented, with a Stalk growing about two Feet in height, bearing at its Ends, or upper Parts, small yellow Flowers, consisting of four Leaves only, which are succeeded by small slender Cods, wherein is contained the Seed of a reddish Colour, but smaller than both the preceding, and not so biting.

3. The Temperature.

Hot and dry in the fourth Degree.

4. The Medicinal Virtues.

White Mustard being eaten, when in its Seed Leaves, quickens, and revives the Spirits, strengthens the Memory, expels Heaviness, and prevents the vertiginous Palsie.

The Seed of Mustard pounded or bruised with Vinegar, is an excellent Sauce, it helps Digestion, warms the Stomach, and excites Appetite.

5. The Parts for Use,

The Seed Leaves for Sallets, and its Seed when ripe in *July* or *August*, but of their several Seeds to make Mustard with for Sauce, the Field Mustard is the best.

6. *The Quantity in a Sallet.*

If the Sallet is composed of four Kinds of Herbs, the Mustard must be one fourth Part, if of five Kinds, one fifth, &c.

7. *The Cultivation.*

The manner of cultivating this Sallet Herb is directly the same as the Chervil and Cresses, in Sect. VIII and XIV.

S E C T. XXIV.

*Of Spear and Garden Mint.*1. *Its Names.*

MINT is called in Greek *ἡδύσμος* and *μινθή*, the *sweet Smell*. (*vide Pliny*, Lib. XIX. Chap. VIII.) It hath changed the Name amongst the *Grecians*, whereas otherwise it should be called *Mintha*, from whence our ancient Writers derived the Name; for *ἡδύς* signifies Sweet, and *ὀσμός* Smell: The *Italian* and *French* call it *Mentha*, as the *Latines*; the *Spaniards* *Terva buena* and *Ortelana*; in *High Dutch* *Muntz*; in *Low Dutch* *Munte*, and in *English* *Mint*.

2. *Their Description.*

1. Garden Mint, called in Latin *Mentha Sativa rubra* comes up in the Spring, with reddish colour'd Buds, succeeded by Stalks of a square Form, and something hairy, whose Leaves are of a deep green Colour, and indented on their Edges, like unto the Teeth of a Saw. The Root grows very shallow, divided into many Joints, from which issues forth many fibrous Roots, as well as its Stalks: It delights in moist rich Land, and loves to extend its Roots to a very great Length.

2. The Leaves of *Salvia Romana*, or Spear Mint are very long and narrow, and in Form not unlike the Willow, but whiter, softer and more hairy; and the Roots are of the same Form as the red Garden Mint, and love the same Soil also.

3. *Their*

3. *Their Temperature.*

Mint is hot and dry in the third Degree, and according to *Galen*, something bitter and harsh.

4. *The Medicinal Virtues.*

The tender Tops of *Mint* being eaten raw, wonderfully help and strengthen a weak Stomach, and dry up all superfluous Humours, cause a very good Digestion, and are very powerful against nervous Crudities.

Mint being distilled, the Water is very good against Gripings and Pains in the Bowels, the Head-ach, and Vomiting.

And being boiled in Wine and drank, is good against the Gravel, Stone and Strangury.

5. *The Parts for Use in Sallets.*

The tender Tops when first springing out of the Ground.

6. *The Quantity in a Sallet.*

When young *Mint* is eaten in Composition with other Herbs. The Quantity is $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, &c. if the Sallet is composed of 3, 4, 5, &c. Kinds of Herbs: But when eaten alone with the Juice of Orange and Sugar, the Quantity is at Pleasure; as also when used in Soups, Sauces, &c.

7. *The Cultivation.*

Mint is propagated by parting the Roots any time in *February* or *March*, being well water'd at planting, if a dry Spring.

To have young *Mint* very early in the Spring, you may take up some of the Roots and put them in the back part of your hot Beds, or strewing a few Seacoal-Ashes on the Border wherein it grows, and placing thereon some square Melon or Bell Glasses, they will cause the *Mint* to spring very early.

When *Mint* is about ten Inches, or one Foot in height, 'tis then in its greatest Perfection for drying: Therefore then cut it close to the Ground, being perfectly dry, otherwise let it remain till it is, and drying it in the Shade, tye it up in Bunches for the next Winter's Use.

S E C T. XXV.

*Of Nettle Tops.*1. *Its Names.*

NETTLE is called in *Greek* Ακαλήφη, in *Latin* *Urtica urens* of its burning and stinging Quality.

2. *The Description.*

This Herb being so well known, and so easy to be found, even in the very darkest of Nights, needs no kind of Description.

3. *The Temperature.*

Stinging Nettles are temperately dry, and a little hot, scarce in the first Degree, and of subtile parts.

4. *Medicinal Virtues.*

Being boiled in spring Pottage, makes the Body soluble, provokes Urine, expells the Stone out of the Kidneys, and purifies the Blood.

The young Tops being stamped, and the juice snuffed up the Nostrils, stop the bleeding of the Nose.

5. *The Parts for Use.*

The young Shoots or Tops, when first out of Ground in the Spring.

3. *The Quantity.*

When spring Pottage, or Soup is made with Nettle Tops, Clivers, Elder Buds, &c. there must be of each an equal Quantity, in Proportion to the Quantity of Soup made.

7. *The Cultivation.*

Nettles growing so very common almost under every Hedge, are therefore never cultivated on purpose in the Garden.

S E C T. XXVI.

Of Citron, Orange and Limon Seedlings.

1. Their Names.

I. **T**HE CITRON Tree is called in Greek *μηλέα μεδική*, in Latin *Malus Medica*, and *Malus Citria*; the Fruit is called in Greek *μήλον μεδικόν*, in Latin *Malum Medicum*, or *Malum Citrium* and *Citromalum*. *Amylianus* in *Athenæus* shews that *Juba* King of *Mauritania* has made mention of the Citron, and calls it *Malum Hespericum*: But *Galen* denies the Name of *Malum Medicum*, and justifies it to be *Malum Citrium*, adding that those who call it *Medicum*, call it so on purpose, that none should understand what they say; which is very common amongst Apothecaries, Attorneys, &c. however the Apothecaries call the Fruit, *Citrones*; in *High Dutch* *Citrin Opffell*, *Citrinaten*; in *Low Dutch* *Citroenen*; in *Italian* *Citroni*, and *Cedri*; in *Spanish* *Cidras*; in *French* *Citrons*; in *English* *Citron Apple*, or *Citron*.

2. The second kind of Citron, is that which we call Limon, 'tis called in Latin *Limonyum Malum*, in *Low Dutch* *Limonen*, in *French* *Limons*, and in *English* *Limon*, *Lemon*, or *Lemon*.

3. Oranges called *Malum Aurantium* or *Aurengium*, of the yellow Colour of Gold. Some call them *Arantia* or *Aran-tium*, a Town in *Achaia*, or *Arania* in *Persia*; the *Italians* call it *Arancio*, in *High Dutch* 'tis called *Pomeranken*, in *Low Dutch* *Araengie Appelin*, in *French* *Pommes d'Oranges*, in *Spanish* *Naransas*, and in *English* *Orange*.

2. Their Description.

1. The Citron is a Tree which never was known to grow very large, but is generally very full of Wood. The Branches are of a tough and pliable Nature, and the bark of a deep Colour.

The Leaves are of a light green, long and broad, very smooth, and of a very delightful sweet Smell. The Branches are

are adorned also with small Thorns, from whose lower parts next the Branch the Blossoms are produced, each composed of five small Leaves of a whitish Colour, something inclining to a purple. The Fruit is of a spheroidical Form, and very often larger than a Limon; whose Kind is of a light golden, or yellow Colour, set with several Wart like Knobs, and of a very pleasant Smell.

The Limon Tree differs very little from the Citron, except in its Blossoms, which are much whiter, and Fruit much less.

The Orange Tree does naturally grow much larger than either Citron or Limon, but the Form of its Leaves and Shoots differ very little from either of the preceding. The Flowers are very white, of a very pleasant sweet Smell, and the Fruit of a globular or spherical Form.

N. B. That this Description is to be understood as general, and not particular to any one kind of Citron, Limon or Orange, of which there are great variety of Sorts, which particularly to describe would be both needless as well as endless; and indeed I cannot but acknowledge, that as my Design here is to speak of the Excellency of the young Seedlings when eaten in a Sallet only, I might have omitted even what is above delivered; but considering that the various Names and general Description might be an Entertainment to some, I therefore thought it necessary that the same should not be omitted.

3. *Their Temperature.*

Moderately hot and dry.

4. *Their Medicinal Virtues.*

The Flowers or young Seedlings being eaten raw, are exceeding grateful and comforting to the Stomach.

The Rind of Citrons being eaten, is very good against all Poisons. There is now extant, in the third Book of *Athenaeus*, a Story of a Malefactor, who being convicted of divers notorious Offences, was condemned to be devoured of Serpents; but the Convict by Accidence, having eaten divers Citrons on the Day that his Execution was designed, and being cast amongst the Serpents, remained in Health and Safety; for instead of their coming to devour him, as they had many others, they

ran away into their Holes, without doing the least hurt imaginable. Hence 'tis very plain that there is nothing in this Life but has its Opposite or Abhorrency.

Lemons distilled with their Rinds, &c. and the Water being drank, provokes Urine, dissolves and expells the Stone.

If to two Ounces of Limon Juice, you add the like Quantity of good Brandy, or the Spirit of Wine rectified, and drink it at the coming of an Ague, it will take away the shaking Fit; and if taken three Times in like manner, never fails of a perfect Cure, provided that the Person afflicted be covered very warm in a Bed at the Time of taking, and kept some Time after in a breathing Sweat.

The Kernels of either Citron, Limon, or Orange, being eaten, kill and expel Worms, and mightily resist Poison.

5. *The Parts for Use.*

The young Seedlings, when about an Inch or thereabouts in height above Ground, and the Flowers, being first infused in Vinegar.

6. *The Quantity of each in a Sallet.*

If the Sallet is composed of four other Herbs, the Quantity of Seedlings must be equal to any one Quantity of the other Herbs, and the like of the Flowers; so that each will be one sixth Part of the whole, and the like of others.

7. *The Cultivation.*

The Kernels being sown on a moderate Hot-Bed, as directed for Chervil, Cresses and Mustard, in Sections viii, xiv and xxiii, and cut as other small Salleting, give a very agreeable and grateful Taste, when eaten in Composition with other Sorts of Salleting. The Flowers are to be gathered as required.

S E C T. XXVII.

Of Onions.

1. Their Names.

THE Onion is called in Greek *κρόμμυον*, in Latin *Cepa*, and many Times *Cepe*, in the neuter Gender.

The ancient Writers called it by the Name of the Place where it grew, some being called *Cypria*, *Sardia*, *Cretica*, *Samothracia*, *Ascalonia*, of a Town in *Judea*, otherwise called *Pompeiana*.

Columella saith, that there is one sort called *Marisca*, which the Countrymen call *Unio*, and from thence the Frenchmen call it *Oignon*, if *Ruellius* is right, who is of that Opinion.

And 'tis supposed that the Low Dutchmen call it *Auenim*, of the French Word corrupted. They are also called *Setania*, when very little and sweet, and are thought to be those which *Palladius* calls *Cepullæ*, though he called them *Parvæ Cepæ*, or little Onions.

2. Its Description.

The Form of young Onions for Sallets, as well as the Bulbs for Sauce being well known to every one, needs no sort of Description; and for its Seed which is produced the second Year, 'tis also well known to every Gardiner.

3. Their Temperature.

Onions are hot and dry in the fourth Degree, but not so extream hot as Garlick.

4. Their Medicinal Virtues.

Being eaten raw in Sallets or boiled in Sauce, raise the Appetite, destroy Phlegm, and corroborate the Stomach.

5. Their Ill Effects.

Their Bulbs being eaten raw in too great a Quantity, dull the Senses, hurt the Eyes, cause over much Sleep, and over-heat the Body.

6. The

6. *The Parts for Use.*

The young Seedlings when as large as a Wheat Straw for *Sallets*, and the *Bulbs* or *Roots* for *Sauce*, when full grown.

N. B. That the kinds of *Onions* worth the *Gardiner's* Care is the *Spanish Onion*, which is generally very large, and sweet; and the *Strasbourg Onion*, which is more mordicant, and keeps much longer than the former.

7. *The Quantity for Use.*

The Quantity of young *Onions* in a *Sallet*, should be equal to two thirds of any one sort of Herb contained in the *Sallet*, and the *Bulbs* or *Roots* for *Sauce* at Pleasure.

8. *Their Cultivation.*

ONIONS are best cultivated in rich Soil, and are sown at the end of *February*, or beginning of *March*, and when they are almost large enough to draw for *Salleting*; they must be houghed out, at about two Inches and half, or three Inches apart, and when fit for *Salleting* may be drawn for Use, leaving those which you intend for a Crop, at five or six Inches Distance from one another, and by so doing, you will have a plentiful Crop, and very large, which they cannot be, when left nearer to each other, as is common amongst many.

In sowing of *Onion* Seed be careful in allowing Seed enough, for it is of such a Nature, that there is seldom more than one Seed in five that is sound. Therefore when you sow sparingly, you are very often disappointed of a full Crop, which is easily prevented, by allowing a sufficient Quantity of Seed at first sowing.

When your *Onions* are about three Quarters grown, it is usual to press down their Tops quite flat to the Ground, to prevent them from robbing the *Bulbs* of their proper Nourishment, and hinder their being very large, and as often as they rise, they must be pressed down again till the Root has done growing, which is known by the Leaves changing their Colour, at which Time they must be pulled up, and laid in Parcels to dry in the Sun, being turned every Day, till very dry; and then taking them away, lay them thinly on the Floor of a Greenhouse, &c. to dry more thorowly, which when

done, sort the large from the small ones, and tye them up in Ropes, &c. for use.

If this Work is performed with great Exactness in Respect to their being thorow dry, and so kept afterwards, many of them will remain sound and good till the middle of *April*. About the beginning or middle of *February*, several of them will begin to *spire* or shoot out, it then being their Season to be planted for Seed; and at that Time prepare a piece of rich mellow Land, wherein they may be planted in Rows, about one Foot asunder (that there may be Liberty to come between them, to destroy the Weeds, &c.) and in the Rows, four or five Inches apart.

When the Stalks begin to open their globular headed Flowers, which are succeeded by their Seed, 'tis good to secure them from the Assaults of the Wind, with small Stakes placed in their Rows at six or eight Feet Distance, to which tye Lines of Packthread or Bass-Matt on each Side the Stalks towards their Top, which will preserve them from being broken down by the Winds.

When the Seed Vessels begin to open, gather, and dry them as directed for the Leek Seed, Sect. XXII. &c.

SCALIONS or Off-sets of Onions produced in the Spring, when the Onions are growing to Seed, supply their Place till succeeded by a fresh Crop; they are hot and dry, but not so much as the Onion; they quicken the Appetite, correct Crudities, and promote Concoction. The Parts for Use are the bulbous Part, and tender Stalks; and the Quantity to be eaten in a Sallet or in Soup is at Pleasure.

S E C T. XXVIII.

Of Garden-Parsley.

1. Its Names.

PARSLEY is called in Greek *σέλινον*, but this kind is called *σέλινον κηπαϊον*, viz. *Apium hortense*; the Apothecaries and Herbarists call it *Petroselinum*; 'tis called in High Dutch *Petersilgen*, in Low Dutch *Trimen Peterselie*, in French *du*

du Persil, in Spanish *Perexil Julivert* and *Salsa*, in Italian *Petrosello*, in English *Persele*, *Parsely*, common *Parsely*, and *Garden Parsley*.

2. Its Description.

Garden Parsley being so very common and useful, is known to every one, and therefore needs no Description.

But that my Reader may not be deceived in the Parsley, whose Leaves are crisped or curled, called *Apium crispum sive multifidum*, or *curled Parsley*, he is to understand that, that is also a *Garden Parsley*, as the former, whose Leaves are smooth, and of the same Use.

The other Parsleys are first, the water Parsley or Smallage, called in Greek *ἡλιοσέλιον*, of *Gaza paludarium*; in Latin *Palustre Apium*, and *Apium rusticum*, in High Dutch *Epffich*, in Low Dutch *Eppe*, and by many *Jouffrouwmerk*, in Spanish and Italian *Apio*, in French *d' Lache*, in English *March marsh Parsley*, and *Apium aquatile*, or water Parsley, but the true water Parsley is *Hydroselinum*, or *Sium majus*.

Secondly, mountain Parsley, called by the Grecians *ὄρεοσέλιον* by the Latins *Apium Montanum* and *Montapium*.

Thirdly, Stone Parsley, of which there are two kinds, the one called *Petroselinum Macedonicum Fuchsi*, or bastard Stone Parsley, and the other *Petroselinum Macedonicum verum*, or the true Parsley of *Macedonia*.

Fourthly, Wild Parsley *Apium Sylvestre sive Thysselium*: And

Lastly, Bastard Parsley with white Flowers, called in Greek *καυκαλῖς*, in Latin *Caucalis albis floribus*, and by some *Daucus sylvestris*, or wild Carrot, but very improper. The Egyptians call it *Seselis*, and the English *Bastard Parsley*, and *Hensfoot*.

These last five kinds being of no use in our Sallets, I shall not describe them, or speak of their Temperatures, Virtues or Cultivations.

3. The Temperature of Garden Parsley.

Garden Parsleys are hot and dry, the Seeds are more so, as hot in the second Degree, and dry almost in the third, and the Roots are moderately hot.

4. *Their medicinal Virtues.*

Both of these Garden Parsleys being eaten in Sauce, provoke Urine, are very grateful to the Stomach, open Obstructions, and are good against the Stone, as also are the Seeds, being taken inwardly.

5. *The Parts for Use.*

The young tender Leaves, proceeding from the Crown or Heads of the Roots.

6. *The Quantity.*

Parsley is very seldom eaten in Composition with other Sallet Herbs, and therefore whenever it is, the Quantity is at Pleasure.

7. *The Cultivation.*

Parsley delights in mellow rich Land, and is propagated from Seed sown in *March*, in small Drills at the edge of a Border, &c. or all over the Border in general.

N. B. That when your Parsley begins to grow strong, or rather too rank for Use, 'tis best to cut down part of it close to the Ground, which will cause it to shoot afresh, and be very young and tender fit for Use.

The Seed lies a very long time in the Ground before it comes up, 'tis produced the second Year, and is ripe in *July* or *August*.

S E C T. XXIX.

*Of the Parsnip.*1. *Its Names.*

THE ancient *Herbarists* called the *Garden Parsnip* in Greek *σαφύλινος*, and *Pastinaca*; and therefore some of the latter called or surnamed it *Latifolia*, or broad leaved, to distinguish it from the other Garden Parsnip with narrow Leaves, which is truly called *Staphylinus*, viz. the Garden Carrot.

Some Physicians not knowing to what Herb the Parsnip could be compared, have feign'd the wild Kind to be *Panacis Species* or a kind of Allheal; others have named it *Bancia*, and some *Brancia Leonina*, but the Garden and wild Parsnip are now called, in *Latin*, the first *Pastinaca Latifolia Sativa*; and the latter *Pastinaca Latifolia Sylvestris*.

2. The Description.

The Leaves of the Garden Parsnip are very broad, consisting of many small indented Leaves, placed on a large Stalk one opposite to the other. The Stalk rises from the Head of the Root in the second Spring, divided into many Joints, from which Leaves come forth of the same Form, as those on the Head of the Root, but much less. The Seed is produced in spokie Tufts growing at the top of the Stalk, 'tis of a circular, flat, and very thin Form, and is seldom good after the first sowing.

The wild Parsnip is like unto the Garden Parsnip, in Leaves, Stalk, Tufts, yellow Blossoms and Seed, but all together much less; the Root is small and of a woody Substance, not fit to be eaten, which the Garden Parsnip is, its Root being very white, sweet, and soft when boil'd, and an excellent Root for the Kitchen.

3. The Temperature.

The Root of the Garden Parsnip is moderately hot and dry.

4. The Medicinal Virtues.

Parsnips are a much greater Nourisher than Turnips or Carrots, they provoke Urine, and are very good for the Stomach, Kidneys, Bladder and Lungs.

5. The Parts for Use.

The Roots when full grown, being preserved for these Months, as directed for Carrots Sect. VII.

6. The Quantity is at Pleasure.

7. Their Cultivation.

The natural Soil for Parsnips is a very deep rich sandy Loam, wherein the Roots will become very large. The

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The Land wherein they are sown should be digged very deep, or rather trenched, and being sown about the end of *February*, or beginning of *March*, will be fit to hough out about the middle of *April*, at which time leave them about eight or ten Inches asunder, which will give sufficient room for their being large; which they cannot be, when they are left at the Distance of five or six Inches, as directed by a late Writer, on the Theorical Parts of Gardening, Part 3. Page 126. And as Radishes, Lettuces, Spinage, &c. are of a very short Duration in the Spring, therefore amongst your Parsnip Seed, mix their Seeds to be sown thinly, and thereby you may receive their Benefit, without the least Prejudice to the young Parsnips. 'Tis the common Practice amongst many Gardiners, to give their Parsnips but two Houghings: But I am well assured by Experience that the oftener either Parsnips, Carrots, &c. are houghed, the better they thrive, for the oftener that the Crust of the Earth is broke, and the deeper they are houghed, the more Liberty they have to swell, which they cannot do, when the Ground is very hard, and baked with heat about them. For it is not their being kept clear from Weeds only, which causes their Growth, so much as often and deep houghing the Surface of the Ground, which not only gives Liberty for their swelling, but for the Rains, Heat, &c. to act with greater Freedom and Power.

To prove this, sow a piece of Parsnips, Carrots, &c. at the proper Season (as aforesaid) and when they are come up hough one part of them as before directed, and only weed the other by hand without houghing, keeping them both very clean from Weeds, during the whole Summer, and in *October*, which is the Season to take them up, you'll find those that were continually hough'd, &c. will be ten times larger and better tasted than the others, that were always kept clean from Weeds and never hough'd, and the like of other Vegetables in general.

SECT.

S E C T. XXX.

Of Potatoes.

1. Their Names.

Clusius calls Potatoes, *Battata*, *Camotes*, *Amotes*, and *Ignanes*, and in *English* they are called *Potatoes*, *Potatus*, and *Potades*.

2. Their Description.

To describe Potatoes would be a needless Work, seeing that they are now very well known by most (if not every) Person in *England*. But as there are divers Kinds of them that grow very well in *England* (which I suppose came originally from *Ireland*, they being very plentiful in that Country) it will not be amiss to say something of their Kinds.

The first is the white Kidney Potatoe, so called, in regard to its Form, which is the true Form of a Sheep, or Hogs Kidney.

The second is the white round Potatoe of Colour and Taste like unto the preceding, as also its Skin which is very thin; both these Kinds are very pleasant in Taste, and oftentimes very large, but don't increase so much as the following.

The third Kind is that, which is called the *Lancashire* Potatoe, of a very pale reddish Colour, and of a very large Growth, but very watery and insipid in Taste to what some of the others are, and especially when planted in a cold and wet Land.

The fourth Kind is the red Potatoe, with a rough Coat, the very best of any, and the greatest Bearer: 'Tis a Potatoe that is generally very large, and of a much finer Taste than the *Lancashire*, and a much better Bearer, but does not come so very early, for which that is most valued.

3. Their Temperature.

The Roots of Potatoes are temperately dry.

4. Their

4. *Their Medicinal Virtues.*

They comfort, nourish and strengthen the Body.

5. *The Parts for Use.*

The Roots, *viz.* The Potatoes themselves being preserved from the Frosts in a warm Cellar, &c.

6. The Quantity is at Pleasure, being boiled and eaten with roasted Mutton, boiled Beef, &c. and require a great deal of Butter, Gravy, &c. They are oftentimes baked and eaten with baked Meats, or roasted in the Ashes, and eaten with Butter as an Egg, when boiled in the Shell. I have seen divers of the *Irish* People boil and eat 'em with Milk, Cheese, or Salt only, which for my part is not so agreeable, as when eaten with (Mutton, Beef, &c. as before delivered.

7. *Their Cultivation.*

The best Land for Potatoes is a light sandy Loam, and rather a green Sward than any other, not but that they will do very well in Land which is cultivated every Year.

The proper time for planting them is *February*, at which time the Ground being digged, they are planted in Rows, at a Foot apart from one another in the Rows, and the Rows at fifteen Inches asunder, and about six Inches deep. But instead of planting these small Potatoes, 'tis best to take some of the very largest, and cut each of them into as many Pieces as there are Buds, planting one Bud or Piece in a Hole, instead of a whole small Potatoe as is usual.

When they are come up, (or sooner if the Ground is foul with Weeds) they must be houghed, and so continued during the whole Summer, till their Haulm shades the Ground and prevents the Growth of the Weeds.

When their Haulm produces Blossoms, their Roots are then knotting for Potatoes, which may be discovered at that time by taking up their Roots, wherein they then appear in great Plenty. And I have often experienced, that those Roots which I have taken up to observe the Progress of their Growth, have been always much larger than the others, which were not then disturbed: For 'tis always a certain Rule, that those Roots, whose Haulm is very short and thick, has the very best Potatoes. And

And those whose Haulm is very rank and large, have seldom any that are worth taking up. The Nature of most Potatoes is to run with their Roots in a kind of Mat, about six Inches round the Stem, at whose bottom are often found very good middling Potatoes; but the very best are generally about eight or nine Inches in depth, near to the Place of the Mother Plant.

In the digging up Potatoes, observe that you place the Spade at a proper distance from their Roots, that you don't cut them, and that you search the bottom of every Hole, lest the best Potatoes are left behind: When Potatoes are planted about six or eight Inches apart, as directed by the aforesaid Theoretical Writer page 132. they seldom are fit for any other Use than to feed Hogs, as also when planted under Trees; therefore of those beware, lest after a great Expence, you have a fruitless Harvest.

Soon after *Michaelmas* their Haulm decays, and 'tis then that you are to take them out of the Ground, and keep them in a warm Cellar (from the Frosts) for Use.

S E C T. XXXI.

Of Penny Royal.

1. Its Names.

PENNY ROYAL is called in Greek γλήχων, and oftentimes βλήχων, in Latin *Pulegium*, and *Pulegium regale*, to distinguish it from *Pulegium montanum*; in Italian *Pulegio*, in Spanish *Poleo*, in Dutch *Poley*, in French *Pouliot*, and in English *Penny Royal*, *Pudding Grass*, *Pulial Royal*, and by some *Organie*.

2. Its Description.

The common Penny Royal, called *Pulegium regium vulgatum*, is so well known, needs no Description.

3. Its Temperature.

Penny Royal is hot and dry in the third Degree, and according to *Galen*, is of subtile Parts.

L

4. The

4. *The Medicinal Virtues.*

Being boiled in Wine, and drank provokes Urine, and expels the Gravel in the Kidneys.

Being taken with Honey, it cleanses the Lungs and Breast from all gross and thick Humours: And with Water and Vinegar asswageth the inordinate desire to vomit, and Pains of the Stomach.

5. *The Parts for Use.*

The tender Shoots for the Kitchen Use, and the Stalks, Leaves, &c. when near full grown for Distilling.

6. *The Quantity of either is at Pleasure.*7. *The Cultivation.*

Penny Royal delights in moist and shady Places, and is therefore planted in *North* Borders. It loves a good holding Loam, and is propagated by Slips, planted any time in *March*.

S E C T. XXXII.

*Of Radish.*1. *Its Names.*

RADISH is called in *Greek*, of *Galen*, *Theophrastus*, *Dioscorides*, and other ancient Writers, *ραφανικ*. By Apothecaries, *Raphanus* and *Sativa Radicula*; and by others *Raphanus Sativus*, the Garden Radish, in *High Dutch* *Rettich*, in *Low Dutch* *Radiis*, in *French* *Raisfort*, in *Spanish* *Ravano*, in *Italian* *Raphano*; by the *Bohemians* 'tis called *Rzedfew*, and in *English* Radish.

2. *Its Description.*

The Garden Radish produces very large Leaves, whose stalky part at bottom is of a dark reddish Colour, and the upper or leafy part very rough, and of a pale green, being indented on its Edges, not much unlike the Leaves of Turnips.

The

The Stalks are round, of a reddish and pale green Colour, divided into many small Branches, at whose Ends spring forth small light purpled colour'd Flowers, each consisting of four Leaves only, which are succeeded by sharp pointed Pods, seemingly puffed or blown up, and full of a spongy or pithy Substance wherein is contained the Seed, which when ripe is of a light brown Colour, of a round Form, and much larger than the Seed of Turnip. The Root is of a taper Form, running down about six or eight Inches, with divers small Fibres breaking from its Sides: The top part of the Root is of a very dark or blackish red, its middle part of a beautiful red, and the lower part quite white; as also are the inward Parts in general, and of a sharp or mordicant Taste.

The best Kinds of Garden Radishes now in being, are the Dwarf or short top Radish which comes very early, and the *London* Radish, that succeeds it, and continues a long while.

3. *Their Temperature.*

According to *Galen*, Radishes are hot in the third Degree, and dry in the second.

4. *Their Medicinal Virtues.*

The tender Leaves, or Roots of Radishes, being eaten raw in Sallets, procure a good Appetite, provoke Urine, dissolve clustered Sand, and expel it.

The distill'd Water of Radish expels the Gravel and Stone in the Kidneys.

5. *Their Ill Effects.*

Being eaten before Dinner, are troublesome to the Stomach, and cause much Belching.

6. *Their Parts for Use.*

The Seed Leaves, and Roots when as large as the thick part of a common Tobacco Pipe, and the Seed-Pods make a very fine Pickle.

7. *The Quantity for Use.*

The Quantity of Seed Leaves, in a Sallet of small Herbs,

ought to be three times the Quantity of any other; and for the Radish Roots, they may be eaten at Pleasure.

3. Their Cultivation.

All kind of Radishes love a sandy Loam, that they may freely strike down with their Roots. To have Radishes early in the Spring, at the end of *August*, or beginning of *September*, sow some Seed under a warm Wall, or rather on a decay'd Hot-Bed, that during the time of Frosts, Snow, &c. they may be preserved therefrom; and about the middle of *February*, or sooner, they will be fit for the Table. And that these may be succeeded by a second Crop, at the end of *September*, or rather a little sooner, sow some Seed in the Border of a *South* Wall, that they may get above Ground in their Seed Leaf, before their Growth is stop'd by the Winter's Cold; and if they are preserved from very great Frosts and Snow in the Winter, they will be in Season about the middle of *March*.

To have the seedling Leaves for eating in Composition with other Sallet Herbs, you must sow it in little Drills, on a gentle Hot-Bed, during *January*, *February*, and the first Week in *March*, as directed for Chervil, Sect. VIII.

SECT. XXXIII.

Of Horse Radish.

1. Its Names.

HORSE RADISH is vulgarly called *Raphanus Rusticanus*, or *Magnus*, and by many *Raphanus Sylvestris*, in *High Dutch* *Merrettich*, *Krain* or *Kren*, by the *Low Germans* *Meradiis*, and in *English*, *Mountain Radish*, *Great Raifort*, and *Horse Radish*; and in the *North* part of *England* 'tis called *Red-Cole*.

2. Its Description.

Horse Radish being now so well known to every one, 'tis needless to give its Description.

3. Its

3. *Its Temperature.*

Horfe Radish is hot and dry in the third Degree, and has a drying, cleaning, digesting Quality.

4. *Its Medicinal Virtues.*

Being eaten with Vinegar, as Sauce, it heats the Stomach, and causes a very good Digestion.

5. *The Parts for Use.*

The Roots being very white, and about two Years Growth, are the Parts for Use, when scraped, or grated very fine.

6. *The Quantity is at Pleasure.*

7. *Its Cultivation.*

The natural Soil for Horfe Radish is a rich sandy Loam, and is thus propagated.

First open a Trench as is usual for trenching of Land three Feet wide, and a full Spit and half deep, and therein place Cuttings of Horfe Radish, each having two Buds at least, at about six Inches apart; then moving your Line, set out the next Trench, which must be but half the breadth of the former, and cast its Earth to the further Side of the first Trench, without laying any Roots in this second Trench. This being done, set out the third Trench equal to the first, *viz.* three Feet, and casting its Earth into the others, will make them good; then in the bottom of this third Trench place the Horfe Radish Cuttings all over at the Distances aforesaid; and afterwards setting out a half Trench, as the second, cast in the Earth, and in like manner proceed till the whole Piece is so planted.

This Method being observed, you will have your young Shoots come up in good Order, in Beds of three Feet wide, with Alleys of one Foot and half between them, which gives leave for their being kept clean from Weeds.

If this Work is performed in *October*, the young Shoots will be up in the Spring, and at *Michaelmas* some will be fit for Use; by the *Michaelmas* following, they will in general be fit for Use.

When

When your Horse Radish is become large enough for the Table or Market, in taking it up, 'tis best to trench the Ground back again, observing to bury its Prunings in the bottom of Trenches, which will come up again, and produce a new Crop, whose Roots will be fine and smooth, free from Knots, Canker, &c.

S E C T. XXXIV.

*Of Rampion.*1. *Its Names.*

RAMPIONS are called by many, *Alopecuros*, because that the Ear or Spike of Flowers are very like unto *Alopecuron*, or Fox Tail, which is another Herb; and by others it has been called *Rapunculum Alopecuron*, that it may differ from the true and right *Alopecuros*, or Fox Tail. In *Latin* 'tis called *Rapuntium majus*, and in *English* *Great Rampion*, or *Garden Rampion*.

2. *Their Description.*

The Leaves of the Garden, or great Rampion, are tolerably large, smooth and plain, very like unto those of the Beet.

From the Head of the Root spring up divers Stalks, set with the like Leaves, but decreasing in their Magnitude, as they approach the top. The Flowers are produced at the top of the Stalks in a thick Cluster, like unto an Ear of Wheat in Form; and before they are open'd they appear like small crooked Horns, after which, when full blown, they are like small Bells (which makes me believe them to be of the Bell Flower Tribe) being sometimes purple, and at other times white.

3. *Their Temperature.*

The Roots are of a cold Temperature and something binding.

4. *Their Medicinal Virtues.*

'Tis reported by many, that the Decoction of the Roots are good for all Inflammations of the Mouth, and Almonds of the Throat, &c. and is a very great Nourisher.

5. *The*

5. *The Parts for Use.*

The Roots boiled, and eaten with Oyl, Vinegar and Pepper; the Seed Leaves, or young Tops in Composition.

6. *The Quantity.*

When a Sallet is composed of five, six, &c. sorts of Herbs, and of each a Pugil, viz. as much as is generally taken up with the Thumb and two Fingers; to such a Sallet we generally add twelve Roots; and of the Seed Leaves or tender Tops an equal Quantity with any other Herb, Radish excepted.

7. *Their Cultivation.*

Rampions delight in a shady, rich and strong Soil.

The Seed is sown early in the Spring, and the Plants are afterwards transplanted out in a shady Border, at the Distance of four or five Inches, wherein they remain (being kept clean from Weeds) till fit for Use.

S E C T. XXXV.

Of Garden, or Spanish Rocket.

1. *Its Names.*

ROCKET is called in Greek *εὐζωρον*, in Latin *Eruca sativa*, in Italian *Ruchetta*, in Spanish *Oruga*, in High Dutch *Rauckenkraut*, in French *Roquette*, in Low Dutch *Rakette*, and in English *Rocket*, or *Racket*.

2. *Its Description.*

The Leaves of Garden Rocket are very like unto those of Turnips, but not altogether so large, or rough.

When it runs up to Seed, the Roots break out into two or three Branches, or Stems which produce Flowers of a whitish, and sometimes yellowish Colour, and are succeeded by small long Pods, wherein are contained the Seeds, which in Form are very like unto Rape Seed, but much less.

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3. *Its Temperature.*

Rocket is hot and dry in the third Degree, therefore *Galen* advises it not to be eaten alone, being rather too hot for the Stomach.

4. *The Medicinal Virtues.*

Being eaten in Composition with other Sallet Herbs that are cold, as Lettuce, Purslane, &c. is very wholesome for the Stomach, and provokes Urine, but when eaten alone, causeth the Head-ach.

5. *The Parts for Use,*

Are the young and tender Leaves.

6. *The Quantity.*

If the Sallet is composed of cooling Herbs, as before observed, there may be one Pugil, or equal Quantity of Rocket.

7. *Its Cultivation.*

The Seed is ripe in *September*, and should then be sown; it delights in a warm rich Soil, and is very hardy, especially the *Roman Rocket*, which is an Annual, and dying every Year, as soon as its Seed is ripe, rises again from its own Seed, if suffer'd to fall.

S E C T. XXXVI.

Of Red Sage.

1. *Its Names.*

SAGE is called in *Greek* *ἑλελίσφακος*, in *Latin*, *Italian* and *Spanish* *Salvia*, in *High Dutch* *Salben*, in *French* *Sauge*, in *Low Dutch* *Saue*; and in *English* *Sage*.

2. *Its Description.*

To describe red Sage, which is so well known, would be needless, and therefore I shall only add, that the Flowers are in bloom in the Months of *June* and *July*.

3. *Its*

3. *Its Temperature.*

Sage is hot and dry almost in the third Degree.

4. *The Medicinal Virtues.*

Sage is singularly good for the Head and Brain, quickens the Memory, and strengthens the Sinews.

5. *The Parts for Use.*

The young and tender Leaves, and Flowers eaten in composition with other Herbs.

6. *The Quantity is at Pleasure.*

7. *Its Cultivation.*

Red Sage is propagated from Layers, or Slips twisted at the lower end, and planted in *September* or *October*, or if planted in *March* or *April* they will grow, but not near so well as when planted in the end of Autumn.

The other Kinds of Sage, viz. The Tea Sage (called by many Sage of Virtue) the Mountain Sage, and the Wormwood Sage, are propagated in like Manner; and as they are in general well known, they need no Description.

S E C T. XXXVII.

Of Sampier.

1. *Its Names.*

THERE are three different Kinds of Sampier, the first called *Rock Sampier*, the second *Thorny Sampier*, and the third *Golden Sampier*; but the *Sampier* eaten in Sallets is the *Rock Sampier*, which is called in Greek *κρίθμον*, in *Latin* *Crithmum marinum*, and by many *Bati*; in *High Dutch* *Meerfenchell*, which is in *Latin* *Feniculus Marinus*, Sea Fennel; in *Italian* *Fenocchio marino*, *Herba di San Pietro*, and hereupon divers call it *Sampetra*; in *Spanish* *Perexil de la mer*, *Hinoimarrino*, *Fenolmarin*, and in *English* *Sampier*, or *Rock Sampier*,
M because

because it delights to grow on Rocks, Clefts, &c. as at *Dover*, *Winchelsea*, &c. and by some 'tis called *Crestmarine*.

2. *Its Description.*

Rock Sampier is very like, in its Leaf, unto that of Purslain, but somewhat less, and of an aromattick Taste.

From the Head of the Root rises the Stalk, which, as it rises, sends forth many collateral Branches, on whose ends grow spokie Tufts of white Flowers, like unto those of Fennel or Dill, which are afterwards succeeded by Seed, in Form very like unto Fennel Seed, but much larger. The Root is generally very thick, and of a very agreeable pleasant Smell.

3. *Its Temperature.*

Sampier, according to *Galen*, is dry and warm.

4. *The medicinal Virtues.*

The Leaves being pickled, and eaten in Sallets with Oil and Vinegar, are very good for the stopping of the Liver, Milt, Kidneys and Bladder; it gently provokes Urine, and excites an Appetite.

5. *The Parts for Use.*

The tender Leaves and Shoots.

6. *The Quantity to be eaten in a Sallet.*

When a Sallet is composed of four Kinds of Herbs, there must be of Sampier one fourth part, when of five Kinds, one fifth, &c.

N. B. Sampier being an Inhabitant of Rocks, Clefts, &c. is therefore gather'd from thence in great Plenty, and seldom or ever cultivated in the Garden.

S E C T. XXXVIII.

Of Scorzonera.

1. Its Names.

SCORZONERA, or *Viper Grass*, called by the Spaniards *Scorzonera*, in Latin *Viperaria* five *Scorzonera*, and sometimes *viperina*, or *serpentaria*, because 'tis of force against the Poisons of Vipers; for *Vipera*, or a Viper is called in Spanish *Scurzo*, and in English 'twas first called *Scorzoner*, and now *Scorzonera*, from the Spanish Name, or Vipers Grass.

2. Its Description.

Scorzonera or Vipers Grass, hath long and plump Leaves, with a large Rib or Stem down the middle of a light green Colour.

The Stalk rises from the Crown of the Root, bearing Leaves of the same Form, but smaller, and yellow double Flowers on its top part.

The Root is almost like a Carrot, its Colour without is black, and white within, yielding a milky Juice, as do the Leaves also.

And besides this kind of Vipers Grass called *Scorzonera*, there are five other Kinds; as first, *Viperaria humilis*, Dwarf Vipers Grass; secondly, *Viperaria Hispanica*, Spanish Vipers Grass; thirdly, *Viperaria Hispanica humilis*, Dwarf Spanish Vipers Grass; fourthly, *Viperaria Pannonica*, Hungary Vipers Grass; and Lastly, *Viperaria Pannonica angustifolia*, narrow leaved Vipers Grass.

These last Kinds being of no Use in our Gardens, I shall not trouble you with their Description.

3. Their Temperature.

Temperately hot and moist.

4. Their Medicinal Virtues.

The Root being eaten, causes chearfulness.

5. Their Parts for Use.

The Roots.

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6. The

6. The Quantity is at Pleasure.

7. *Their Cultivation.*

Scorzonera delights in a sandy Loam, 'tis propagated by Seed sown in *March*, which ripen'd the *July* or *August* before.

S E C T. XXXIX.

Of Scurvy Grass.

1. *Its Names.*

SCURVY Grass or Spoonwort, so called in regard to the Leaves being of the form of a Spoon, called in *Latin* *Cochlearia rotundifolia*, or round leafed Scurvy Grass. And besides this Kind there is another Sort which is more common called *Cochlearia Britannica*, the common *English* Scurvy Grass.

2. *Its Description.*

The round leaf Scurvy Grass is of a very low Growth, producing many Leaves from the Head of the Root, which are of a round hollow Form, and a very deep shining green Colour. The Flowers or Blossom rise from the Head of the Root, of a white Colour, and are generally in Bloom about the middle of *May*, and the Seed ripe in *June*.

The common Scurvy Grass being well known, needs no Description.

3. *Its Temperature.*

Hot and dry.

4. *Its Medicinal Virtues.*

Being steeped in Ale and drank, is very good against the Scurvy, and is a great Sweetner of the Blood.

5. *The Parts for Use.*

In Sallets, the very young and tender Seed Leaves; and in Drink, Distilling, &c. the larger Leaves more grown.

6. *The*

6. *The Quantity in Sallets.*

The Quantity eaten with other Herbs is at Pleasure, as also in Drink, &c.

7. *The Cultivation.*

The Seed gather'd when ripe in *June* or *July*, may be sown on a fresh Border any time in the Spring; it delights in a moist Soil which is not fully exposed to the Sun.

S E C T. XL.

Of Sellery.

THERE is no Herb adds so rich a Flavour to our Spring Sallets, as blanch'd Sellery. It is a Herb generously hot, and very easily propagated. To describe this Herb would be a needless work, seeing that its great Use has made it universally known to every one; and therefore I shall pass over that, and proceed to the Propagation thereof.

To have Sellery very early, 'tis best to sow the Seed upon an old decay'd Hot-Bed at the end of *February* or beginning of *March*, and when the Seed is come up, and about three Inches high, or thereabouts, prepare a Border of a light and rich Nature, or rather a decay'd Hot-Bed, and therein prick out the young Plants at four Inches apart, giving them good Waterings when required.

Having thus transplanted them out, when they are about seven or eight Inches high, and become good strong Plants, you must then plant them out for good, which perform as follows, *viz.* Having made choice of a good piece of Land proper for the purpose, strain a Line the whole length thereof, which chop out with your Spade, and then remove it parallel to the first, at about eight or ten Inches distance, *viz.* equal to the breadth of one Spit.

That being done, dig out the first Spit, about eight or nine Inches deep, throwing the Earth on each side of the Trench, and about three Feet from the first Trench, dig a second, and after

after that a third, &c. The Trenches being thus open'd, 'twill not be amiss if in the bottom of every Trench, you prick in a tolerable good Coat of well rotted Horse-dung, and especially if your Land is poor, 'twill greatly add to the Growth of your Sellery.

The Trenches being thus prepared ready for planting, take an old Knife or piece of a Sythe, and cut out the Plants, putting them into a shallow Basket with Care, that you do not knock off the Earth from their Roots, and plant them in the bottom of the Trenches, at about six or seven Inches apart. Having first pruned their Heads to about five or six Inches in length.

Some are so curious as to tie up their Leaves together with a small piece of Bast, that they may not, when a little flag'd at first removing, lie down upon the Ground.

After your Plantation is ended, be sure to give them a very good Watering, and indeed at all other Times, when the Earth is dry.

When your Plantation is about nine or ten Inches in height, you must earth them up within four or five Inches of the top, and so continue during all the time of their Growth.

About six or seven Weeks after earthing up, they will be whiten'd, that is, what we call blanch'd, and are then fit for the Table.

To have a plentiful Supply of Sellery, 'tis best to sow and raise Plantations at different Times, about one Month after the other, by which Means we may be well furnish'd throughout the whole Year.

The most gross or rank strong Roots are more fit for Soup, than for Sallets; therefore I advise that the midling sized Sellery be chosen for Sallets with their small Suckers, which break out from the sides of their Roots.

I have seen some Gardiners, who have been very curious in the splitting of the blanched Leaves of Sellery with a Pin, which being afterwards thrown into clean cold Water curl themselves up, and make a very agreeable Figure, when well disposed of amongst the other Sorts of Sallet Herbs.

The number of Roots eaten in a Sallet is generally about five or six, when of other Kinds there is but a Pugil of each, viz. as much as one commonly takes up between his two Fingers and Thumb.

Sellery

Sellery may be eaten in Composition with other Sallet Herbs, or alone, with Oil, Vinegar, Salt and Pepper.

S E C T. XLI.

Of Skirrets.

1. Its Names.

THE Skirret is called in Greek *σιτάρον*, in Latin *Sisarum*, by the Germans *Sierlin*, *Tragus Zamgarten Rapunkelen*, in the low Countries *Suycker Wortelen*, viz. Sugar Roots, and oftentimes *Scrillen*, in Spanish *Cherinia*, in Italian *Sisaro*, in French *Cheruy*, and in English *Skirret* or *Skirwort*.

2. Its Description.

The Leaves of the *Skirret* consist of many small Leaves fastned to one Rib, very like unto those of a Parsnip, but lesser, smoo-ther and of a deeper Green. The Stalk rises from the Head of the Root, bearing at its ends little spokie Tufts of white Flowers; the Roots are of a white Colour, and of a very sweet and pleasant Taste.

3. Their Temperature.

The Roots, which are their Parts for Use, are moderately hot and moist.

4. Their medicinal Virtues.

They create an Appetite and provoke Urine: And according to *Hieronymus Heroldus*, the Women of *Swevia* prepare the Roots hereof for their Husbands, and know full well wherefore and why, &c. I suppose they find a secret Pleasure therein, for they are very great Provokatives.

5. The Parts for Use.

The Roots eaten either raw, in Composition, or boiled and eaten with Vinegar, Oyl, Salt, &c.

6. The Quantity is at Pleasure.

7. Their

7. *Their Cultivation.*

The *Skirret* delights in a light, rich and moist Soil, and may be propagated by sowing the Seeds in *March*; but are more generally raised from Slips or Sets planted in the same Month.

The manner of increasing them is as follows. In *March*, when they begin to shoot forth their Leaves, take up the Roots, and part or divide them into as many Slips as possible, taking away all the old Roots, and preserving none but the fresh growing Fibres. This being done, take a large Hough, and draw deep Drills, about six Inches in depth, wherein place or plant the young Slips at about five or six Inches distance from each other, and during all the time of their Growth keep them well water'd, which will add very much to their Growth.

S E C T. XLII.

*Of Sorrel.*1. *Its Names.*

THE Garden Sorrel is called in Greek *ὄξαλις*, and *ἀναξυρίς*, and by Galen *ὄξυλάπαθον*, viz. *Acidum lapathum*, or *Acidus Rumex*, sower Dock, the Germans call it *Sawrampher*, in Low Dutch *Surckele* and *Surinck*, the Spaniards *Azederas*, *Agrelles*, and *Azedas*, in French *Ozeille*, and *Surelle Aigrette*, and in English Garden Sorrel.

The several Kinds of Sorrel are seven, viz. the first called in Latin *Oxalis sive Acetosa*, Sorrel. The second, *Oxalis tuberosa*, knobbed Sorrel; the third, *Oxalis tenuifolia*, Sheeps Sorrel; the fourth, *Oxalis Franca seu Romana*, round Sorrel, called also *French Sorrel*; and fifthly, *Oxalis Crispa*, curled Sorrel; sixthly, *Oxalis minor*, small Sorrel; and lastly, *Oxalis minima*, the smallest Sorrel: But *French Sorrel* is the best for Sauce, Sallets, &c.

2. *Their Description.*

The several Kinds of Sorrels being well known to every one, need no Description.

3. *Their Temperature.*

Moderately cold, moist and acid.

4. *The Medicinal Virtues.*

Cools a hot Stomach, creates an Appetite, opens the Obstructions of the Liver, and assuages the Heat thereof. It cuts tough Humours, and strengthens the Heart.

5. *The Parts for Use.*

The tender young Leaves.

6. *The Quantity in a Sallet.*

The Quantity of Sorrel in a Sallet is generally at Pleasure, some loving a greater Quantity of acid than others: But the usual Quantity is an equal part, proportionable to the other Sorts of Herbs, as a fourth part, when the Sallet is composed of four Kinds of Herbs; a fifth, when of five, &c.

7. *Its Cultivation.*

The Garden and French Sorrels are propagated from Seeds sown in *March* in Drills on the edge of a Border, and make a very handsome and profitable Edging.

S E C T. XLIII.

Of Spinach, or Spinage.

1. *Its Names.*

SPINAGE was anciently called *Spinachia*, and *Spinachium* *solus*, and by some *Hispanicum olus*. *Fuchsius* calls it *Σπιναχία*; the *Arabians* and *Serapio* call it *Hispane*, the *German*s *Spinet*, the *French* *Espinas*, and the *English* *Spinach*, or *Spinage*.

2. *Its Description.*

It is supposed by many *Herbalists* that *Spinach* is a Sort of *Orach*; the Leaves being soft and tender, of a dark green Colour,

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Colour, full of Juice, sharp pointed, and deeply indented towards the Stalk end. The Stalk rises about a foot and half high, and is hollow within, bearing on its top divers Clusters of Flowers, which are succeeded by a prickly Seed, and is therefore called prickly Spinage. But besides this Kind of Spinage, whose Leaves are deeply indented, there is another Kind called round Spinage, on Account of its Leaves being of a round Form, without being indented, as in the other.

3. *Their Temperature.*

Spinage is cold and moist, almost in the second Degree.

4. *The Medicinal Virtues.*

Laxative and emollient.

5. *The Parts for Use.*

The tender Seed Leaves when eaten in a Sallet, and the well grown Leaves when used in Soup, &c.

6. *The Quantity.*

When the young Seed Leaves are eaten in Composition, there must be the same Quantity of them as of other small Sallet Herbs, Radish excepted.

7. *The Cultivation.*

Spinage is propagated by Seed, and to have a plentiful Store thereof during the Winter and Spring, we must sow the Seed about the beginning, middle, and end of *August*, on good rich Land, which when come up, and large enough to hough out, must then be run over with a hough, and left at about five or six Inches apart; and as I before directed its being sown at three different Seasons, so you must observe in the Spring also, to keep sowing sufficient Quantities every Fortnight; for in the Spring 'tis very rare to find that one Crop will last longer than a Fortnight.

The prickly Spinage is of the same Taste when boil'd as the round Leaf, but is not so much esteem'd by Gardiners.

S E C T. XLIV.

Of Succory.

1. Its Names.

SUCCORY is called in Greek *κικώριον*, in Latin *Cichorium sativum*, the Germans calls it *Wegwarten*, the Italians *Cichorea*, the Spaniards *Almerones*, the Bohemians *Czakanka*, and the English *Cichory* and Succory. Pliny named the broad Leaf Succory *Hedypnois*, and the bitterer *Dioscorides* calleth *πικύς*, in Latin, *Intybum sylvestre*, *Intybum agreste*, *Intybum erraticum*, and *Cichorium*.

2. The Description.

Garden Succory is of two Sorts, the one with broad Leaves, and the other with narrow deeply indented: The Leaves of the first Kind are something hairy, and very like unto those of Endive. The Stalk rises from amongst them dividing its self towards the top, into many Branches, whereon grow little blew Flowers consisting of many Leaves, which are afterwards succeeded by white Seed. The Root is of a long duration, producing a white milky bitter Juice, as also doth the Leaves and Branches when broken.

3. The Temperature.

Cold and dry in the second Degree.

4. The Medicinal Virtues.

Being eaten raw in a Sallet, comforts the weak and feeble Stomach, cools the Liver, and opens the Obstructions of Urine.

5. The Parts for Use.

The Leaves being blanch'd, or whiten'd as the Endive, Sect. XVII.

6. The Quantity to be eaten in a Sallet is at Pleasure, it

being more pleasing to the Stomach than the Taste; 'tis also very good being boiled in Soup.

7. *The Cultivation.*

Succory is encreased by sowing the Seed in *July*, and ordered in every Respect as the Endive, Sect. XVII.

S E C T. XLV.

Of Tanfie.

1. **T**ANSIE, called in *Latin Tanacetum*, being universally known, needs no Description.

2. *Its Temperature.*

The Garden Tanfie is hot in the second Degree, and dry in the third.

3. *The Medicinal Virtues.*

Tanfie being eaten with eggs fried, or in a Tanfie, &c. is very good for the Stomach; For if any bad Humours cleave thereunto, it doth perfectly concoct them, and scowre them downwards.

The Seed of Tanfie is a singular and approved Medicine against Worms, for in what sort soever it be taken, it kills and expells them; and being drunk with Wine, is very good against the pain of the Bladder, and stoppage of the Urine.

4. *The Parts for Use.*

The young and tender Leaves.

5. The Quantity is at Pleasure.

5. *The Cultivation.*

Tanfie is increased by parting the Roots, and planting them any time in the Spring: 'Tis a valuable Plant, and ought not to be wanting in our Kitchen Garden.

The ingenious Mr. *Bradley* tells us, in his new Improvements, Part III. page 172. that he has experienced the great Virtue of this Herb, and found that one handful being boil'd in a half pint of strong White Wine, and the Decoction drank as hot as is possible to be drank, immediately removes the pain of the Gout in the Stomach.

When Tanſie is qualified with the Juice of Spinage and fried, 'tis very pleasant and grateful to the Stomach, and eſpecially being eaten hot with the Juice of Orange and Sugar.

S E C T. XLVI.

Of Tarragon.

1. *Its Names.*

TARRAGON is called in *Greek* πολυείδος, in *Latin* *Draco*, in *Italian* *Dragoncellum*, in *French* *Dragon*, and in *English* *Tarragon*.

2. *Its Description.*

Tarragon hath long and narrow Leaves, of a deep green Colour, broader and longer than thoſe of *Hyſſop*, with ſlender brittle round Stalks, about which hang ſmall round Flowers of a yellow Colour mixed with black like unto thoſe of common Wormwood.

The Root is long, with many Fibres breaking out of the Sides and extending themſelves like unto Couch Graſs.

3. *The Temperature.*

Tarragon is hot and dry in the third Degree.

4. *The Medicinal Virtues.*

Very good for a cold Stomach, being eaten raw in a Sallet.

5. *The Parts for uſe.*

Their tender Tops, or young Leaves.

6. *The*

6. *The Quantity.*

This Herb being well mixt in a Sallet, gives it a very agreeable Relish, altho' some cannot endure any part of it in a Sallet. When a Sallet is composed of six or seven Sorts of Herbs, and of each a Pugil, to them may be added about twenty five large Leaves of Tarragon, and the like of a Sallet of any other Size.

7. *The Cultivation.*

This Herb delights in a warm Exposure, and is increased by Slips taken from the Roots, and planted any time in the Spring.

S E C T. XLVII.

*Of Turnips.*1. *Its Names.*

THE Turnip is called in Greek γογγύλη, in Latin *Rapum*, and by some *Rapa*. The Lacedemonians call it γασήρ, in High Dutch *Ruben*, in Low Dutch *Rapen*, in French *Naueaurond*, in Spanish *Nabo*, and in English *Turnip* and *Rape*.

2. *Their Description.*

To describe the several parts of a Turnip, which is already well known, would be a needless work, and therefore I shall pass over the same in Silence, and only add, that the very best Kinds are the yellow and flat white Turnip, red on the upper part, and of these the best are those of a midling Growth; the very large ones being, for the most part, either sticky and hard, or woolly and soft like unto the Pith of an Elder Tree.

3. *Their Temperature.*

Windy and moist.

4. *The Medicinal Virtues.*

The young tender Shoots or Tops, boiled and eaten provoke Urine. The Decoction of Turnips is good against a Cough and Hoarseness of the Voice, being drank in an Evening with a little Sugar, or Quantity of clarified Honey.

5. *The Parts for Use.*

The Seed Leaves when eaten in Salleting, the Roots when boil'd, and the tender Tops in the Spring for Soup.

6. *The Quantity for Use.*

The Quantity of the Seed Leaves to be eaten in a Sallet is an equal part with others; but the Roots and tops are at Pleasure.

7. *Their Cultivation.*

The sweetest Turnips are produced on a light sandy Loam. The time of sowing Turnips to come in, for the Months of *January, February* and *March*, is *August*: But to have them sooner for the Months of *October, November* and *December*, they may be sown in *June* or *July*; and indeed I can't see any Reason why we may not sow them earlier, as in *March, April* or *May*, that thereby our Table may be plentifully supplied throughout the Summer. However let them be sown at any time, the manner of sowing and ordering after is the same. To explain the Method of sowing Turnip Seed for a Crop, is as needless as to describe what sort of a Root a Turnip is: The only Care therein is, that you do not sow them too thick, which will cause a very great Trouble and Expence in their houghing, or too thin, whereby you will be deprived of a Crop. Their proper distance ought to be about seven or eight Inches, and twice houghing them over is generally sufficient.

If in the Winter the Frosts are very severe, 'tis best to pull them up and pit them, as directed for the Carrots, Sect. VII. or keep them in Sand in a warm Cellar.

The manner of sowing Turnips for young Salleting is the very same with that of Cresses, Mustard, Chervil and Radish.

Having

Having thus given a general Account of the several Sorts of raw and boil'd Salleting for the Months of *January, February* and *March*, I shall now proceed to the Construction of two Tables, of which the first will exemplify all the several Herbs in their respective Degrees of Heat, Cold, Moisture, &c. by the help of which we may be capable of composing a Sallet to any Degree required: And the second Table, the several Kinds of Herbs good against every one particular Disease, the whole being digested in an alphabetical Manner, for the more ready finding any part required.

A Table of the Degrees of Heat, Cold, &c. contain'd in the several Sallets, for the Months of JANUARY, FEBRUARY and MARCH.

Sallet Herbs hot and dry.

B ROOM Buds 2 ^d Degree.	Onions almost in the 4 th Degree.
Chives.	Penny Royal 3 ^d Degree.
Clary 3 ^d Degree.	Radish hot in the third Degree,
Garden Cresses 2 ^d Degree.	and dry in the second.
Water Cresses.	Horfe Radish 3 ^d Degree.
Elder Buds and Flowers.	Garden Rocket 3 ^d Degree.
Fennel 3 ^d Degree.	Red Sage almost in the 3 ^d De-
Garlick 4 th Degree.	gree.
Hop Tops 2 ^d Degree.	Scurvy Grafs.
Leek.	Tansie, hot in the second, and
Mustard 4 th Degree.	dry in the third.
Mint 3 ^d Degree.	Tarragon 3 ^d Degree.

Sallet Herbs temperately, &c.

Brooklime.	Orange and Limon Seedlings.
Chervil.	Parsnip.
Clivers.	

Sallet

Sallet Herbs temperately hot and moist.

Carrot, Scorzonera, and Skirret.

Sallet Herbs generously hot.

Sellery.

Sallet Herbs cold and moist.

White Beet.

Lettice.

Cucumber 2^d Degree.

Spinage.

Sallet Herbs cold and dry.

Red Beet, Endive and Succory.

Sallet Herbs cold and something binding.

Rampions.

Sallet Herbs moderately cold and acid.

The several Sorts of Sorrel.

Sallet Herbs dry and binding.

The several Kinds of Cabbages, &c.

Sallet Herbs temperately dry, and little or nothing binding.

The several Sorts of Cowslips, and Nettle Tops.

Sallet Herbs windy and moist.

The several Sorts of Turnips.

Sallet Herbs warm and dry.

Sampiers.

Sallet Herbs nourishing.

Asparagus, Parsnips, Potatoes, and Rampion.

TABLE II.

Of the several Effects, which the Sallets for JANUARY, FEBRUARY and MARCH have on human Bodies.

1. BLOOD *to cleanse and sweeten.*

ELDER Buds, Hop Tops, Nettle Tops, and Scurvy-Grass.

2. DIGESTION *to help.*

Asparagus, Mustard, and Horse Radish.

3. DROPSIE *acquired by Cold.*

Broom Buds, and Garlick.

4. FATNESS *to prevent.*

Clivers boil'd in Soup, &c.

5. HEAD and BRAIN.

Red Sage.

6. HUMOURS (*gross*) *to make thin.*

Garlick, Nettle Tops, and Sorrel.

7. LUNGS *to strengthen.*

Leek, Parsnip, and Penny-royal.

8. MEMORY *to strengthen.*

Red Sage.

9. LIVER *to cool.*

Broom Buds, Endive and Sellery.

10. LOOSENING.

White Beet, Cabbage, Corn Sallet, Elder Buds, Hop Tops, Nettle Tops, and Spinage.

11. RE.

11. REFRESHING.

Corn Sallet, Cresses, and Scorzonera.

12. OBSTRUCTIONS *to open.*

Garlick, Hop Tops, Onions, Sampier, and Sorrel.

13. SCURVY.

Brooklime, Scurvy-Grafs.

14. STOMACH, *cold and feeble.*

Chervil, Clary, Elder Buds, Garlick, Leek, Mustard, Mint, Orange Seedlings, Onions, Parsnip Penny-royal, Horse Radish, Garden Rocket, Tanfie, Tarragon, and Alexanders.

15. STOMACH *hot.*

All the Sorts of Lettice and Sorrels.

16. STONE *and GRAVEL.*

Wild Carrot, Water Cresses, Fennel, Mint, Nettle Tops, Parsnip, Penny-royal, and Radish.

17. URINE *to provoke.*

Asparagus, wild Carrot Seed, Chervil, Chives, Water Cresses, Endive, Fennel, Garlick, Hop Tops, Nettle-Tops, Onions, Parsnip, Penny-royal, Radish, Sampier, Skirret, Scurvy-Grafs, Tanfie and Turnips.

18. WIND *in the Stomach.*

Garlick.

19. WORMS.

Garlick.

20. *To excite an APPETITE.*

Cucumbers, Mustard, Radish, Sampier, Skirret, and Sorrel.

TABLE III.

1. *The raw Sallets for JANUARY, FEBRUARY and MARCH are, The*

Y OUNG Tops of Alex- anders.	Mint.
Brooklime.	Orange and Limon Seedlings.
Chervil.	Young Onions.
Chives.	Radish.
Cowslips.	Horse Radish.
Corn Sallet.	Rampion Seed Leaves and Tops.
Garden Cresses.	Red Sage.
Water Cresses.	Sampier.
Cucumber.	Scorzonera.
Endive.	Sellery.
The young Shoots of Fennel.	Sorrel.
Lettice.	Spinage.
White Mustard.	Succory.
Tarragon.	Turnip.

2. *The boiled Sallets for JANUARY, FEBRUARY, and MARCH are, The*

Asparagus.	Lettice.
Beets.	Leeks.
Cabbages and Coleworts.	Nettle-Tops.
Savoys.	Onions.
Carrot.	Parfnips.
Clivers.	Potatoes.
Elder-Buds.	Rampion.
Hop-Tops.	Skirrets.
Turnip.	Spinage.

3. *The pickled Sallets for JANUARY, FEBRUARY, and MARCH are,*

The Broom-Buds, red Cabbage, Cucumbers, small Onions, Radish Pods, French Beans, Walnuts, Nasturtium Seeds, Berberries, Mushrooms, &c.

Before that I proceed to the Sallets for the Months of
April,

April, May and June, 'twill not be amiss, if I first lay down proper Directions for the gathering and ordering of a Sallet after the best Manner: And altho' I place these Directions now immediately after the Sallets for *January, February and March*; yet the same is to be observed at all Times throughout the whole Year.

DIRECTIONS for the gathering, ordering, and dressing of a Sallet.

In the Choice of Sallets observe,

- First, That the Kinds are young and delicate.
- Secondly, That they are picked very clean from imperfect, slimy, &c. Leaves.
- Thirdly, That each Kind be wash'd separately in two clean Waters.
- Fourthly, That they are well drain'd in a Cullender, and afterwards swing'd dry in a clean Napkin.

Fifthly and Lastly, That every sort be proportion'd as directed in the preceding Sections, and laid singly in the Dish, in such a Manner, as to form a pyramidical, or other agreeable Figure.

N. B. That during the Months of *January, February and March*, Sallets may be cut at any time of the Day; but when the Weather increases in heat, the best time to gather or cut a Sallet, is about eight or nine of the Clock in the Morning, to be afterwards kept in a cool place, till within one Hour before 'tis eaten, at which time, it should be wash'd as before directed, and not immediately before 'tis eaten, as practised by many.

And when you are obliged to cut a Sallet in very hot Weather, put it into Spring Water for the space of half an Hour or more, and then take it out, and order it as before directed.

And having thus gather'd and wash'd your Sallet, the next Work is the dressing, wherein observe,

First, That the Oil be very clean, smooth, light, and perfectly sweet, without any sort of rancid Smell.

Secondly, That the Vinegar, or other acid, be perfectly clear and fresh.

Thirdly, That the Salt be of the brightest and best refined Kind, and moderately dry.

Fourthly, When Sugar is used, that it be the very best refined.

Fifthly, That the Vinegar, Salt and Sugar, be proportioned to the heat or cold of the Stomach, as near as can be.

Sixthly,

Sixthly, That the Sallet be composed of such Herbs as are agreeable to both Weather and Constitution; which last may be performed by the Directions of the first Table, and the former by Discretion.

N. B. That Sallets should be so chosen, as to be agreeable to both Weather and Constitution, as is said before, *viz.* those which are hot, for cold Weather and cold Stomachs; the temperate ones, for temperate Weather, and the very cool ones, for very hot Weather, as well as hot Stomachs.

N. B. That Sallets may be so mix'd, as to be hot and moist, hot and dry, temperate, &c. as for Example, Onions and Cucumbers being mix'd together, *viz.* double the Quantity of Cucumbers as of Onions, the one being cold and moist in the second Degree, and the other hot and dry in the fourth Degree.

This Mixture moderates the opposite Natures of both, and causes them together to be of a temperate Quality, and the like of all others.

The best Dishes to dress Sallets in, are *China* Dishes, on Account that the Oil and Vinegar are disagreeable to both Silver and Pewter.

The Oxoleon.

Take of clear and perfect good Oyl Olive three parts; of sharp Vinegar, Limon, or Juice of Orange one part; and therein let steep some Slices of Horse Radish, with a little Salt, and some in Vinegar alone; gently bruise a pod of *Guinea*-Pepper straining both the Vinegars apart, to make use of either, or alone, or of both as they best like. Then add as much good dry Mustard grated as will lie upon an half Crown piece, beat and mingle all these very well together; but pour not on the Oyl and Vinegar, till immediately before the Sallet is ready to be eaten; and then with the yolk of two new laid Eggs boil'd, squash and bruise them all into mash with a Spoon: And Lastly, pour it all upon the Herbs, stirring and mingling them till they are well and thoroughly imbib'd, not forgetting the sprinkling of Aromatick Flowers that are in Season, as well as thin slices of red Beet, Horse Radish, Berberries, &c.

N. B. That the Liquids may be made more or less acid, as is most agreeable to the Taste.

C H A P. II.

Of the several Sallet Herbs, Roots, &c. for the Months of April, May and June.

S E C T. I.

Of Asparagus.

THE several Names, Description, Temperature, medicinal Virtues, Parts and Quantity for Use, being already declared at large in the first Part hereof, needs no Repetition: And therefore, as this Herb is now in its greatest Perfection, I therefore advise that great Care be taken in the cutting, as I have before advised, and that the latest time of cutting be never longer than the first Week in *June*.

S E C T. II.

Of Artichoke.

1: *Its Names.*

THE Artichoke is called in *Greek* *κωνάρα*, in *Latin* *Cinara* of *Cinis*, *Ashes*, a Manure wherewith it delights to be dress'd, in *Italian* *Carcioffi* *Archicocchi*, in *Spanish* *Alcarrhosa*, in *High Dutch* *Strobildorn*, in *Low Dutch* *Artichoken*, whereupon divers call it in *Latin* *Articocalus*, and *Articoca*, in *French* *Artichaux*, and in *English* *Artichoke*.

2. *Its*

2. *Its Description.*

ARTICHOKES being universally known, I need not give any Description thereof; but as they by Degeneration are now become of many Kinds, some good, and other very bad, I shall by the way advise, that when Plantations of this Herb is made, that the Slips are taken from a very good Kind, as from those planted in the Neat-House Gardens near *London*, or other Places, where the Kind is known to be very good.

3. Their Temperature is windy, and medicinal Virtues little or any at all.

4. *The Parts for Use.*

The young Leaves blanch'd, and the Chokes when fully grown, before they offer to blossom.

5. The Quantity of either is at Pleasure.

6. *Their Cultivation.*

Artichokes delight in a warm, rich and deep Soil, and are propagated from Suckers or Slips, taken off and planted in *March* or *April*, in Holes or Cups as pickling Cucumbers, about two Feet and half apart in Lines, and about four Feet distant from each other. In every Hole or Cup you must plant three Plants in the Form of an equilateral Triangle, at about eight or nine Inches apart, having first prun'd their Heads to about the same Number of Inches.

This young Plantation being kept very well water'd will thrive very strongly, and many of them produce good *Chokes* about *September*, but I cannot recommend that they should; for it very often happens that they die after, or are greatly weaken'd thereby. Therefore to prevent the Loss of your Plantation, as soon as the young *Chokes* appear, break them off, and the Plants will be greatly strengthen'd thereby.

When you slip Artichokes, be careful of leaving a sufficient number of Slips behind for a Crop, which ought always to be considered, with respect to the strength of the Plant.

Therefore when your Plants are very strong, you may allow to each Root, three Heads, or four at the most, and to those that are weaker, two or three at the most.

When

When the old Stems have done blowing, which is about *July*, break them off close to the Ground, and their Roots will afterwards break out and furnish themselves with fresh Shoots for the Winter.

About the middle of *November* they require to be dig'd, and at the same time their large spreading Leaves must be pruned away; and instead of flat digging them, they must be ridged in such a Manner, as the Roots may stand in the middle of every Ridge, to preserve them from the Frosts of the Winter, which if they prove to be very hard, you must not fail to defend them with fresh Horse Dung, or other long Litter, that will keep the Frosts from their Roots.

When Artichokes are planted in strong wet and cold Lands, they seldom last longer than the first Year.

N. B. That altho' I advised the breaking of the young Chokes or Flowers of the young Plantation, which is intended for future Times; yet 'tis very necessary that a small piece be planted every Year, and suffer'd to grow up to large *Chokes* fit for the Table, to succeed those produced from the old or mother Plants in *June*.

S E C T. III.

Of (Lisbon and Windsor) Beans.

1. Its Name.

THE Bean is called in *Latin Faba*, and that which we call the great *Windsor*, or Garden Bean, *Faba major hortensis*, the great Garden Bean, and the Hog or Horse Bean, originally growing wild, was called *Faba Sylvestris*, the wild Bean.

2. Their Description.

To describe what a Garden Bean is, would be a needless Undertaking, seeing that every Boy is well acquainted therewith: And therefore I shall proceed to the Description of such Sorts as are most advantageous and worth our Notice.

P

The

The Bean having very great Varieties, it would be endless, as well as useless, to describe all its several Kinds, and as there are but two Kinds that are very good, and valuable among Gardiners, therefore I shall take notice of those two, and omit all the other. The first is the *Spanish* or *Lisbon* Bean, which in Nature is hardy enough to endure most of our Winters Frosts, &c. and produces an early Crop about the end of *April* or beginning of *May*.

This Kind of Bean is commonly planted under *East*, *South* or *West* Walls, in *October*, or *November*, at about six or eight Inches distant from the Wall, and the like distance in the Row: And altho' by this Means they come in very early in the Spring, and at first gathering receive a kind Welcome, or if sold, a tolerable good Price; yet I cannot by any Means advise their being planted so very near to the Fruit Trees, which, if great care is not taken, are very much damaged thereby. I have too often seen, that for the sake of three or four Beans, not worth one Penny, a good Peach or other Fruit Tree, worth half a Crown, has been destroyed, by suffering those Beans to grow so very near, as totally to deprive the Tree of its proper Nourishment, and thereby became (if not quite dead) good for nothing and irrecoverable.

And besides, it is not the Loss of the prime Cost and Expence of planting it only, but the great Disappointment and Loss of one Year, which is a very great part of a Man's Life.

Now that this Practice may be laid aside, the Fruit Trees no ways injured, and the Table be well and early furnish'd with a good Supply; I advise that about the end of *August*, or middle of *September*, you plant or set as many of these early Kinds of Beans, in an open Border, at about three Inches every way distant from one another, as you may have Occasion for, for your first Crop, which when grown about three Inches or thereabouts in height, must be taken up and transplanted against such parts of your Walls as are naked, but never nearer to the Root or Stem of any Fruit Tree, than three Feet on each side thereof at the least: And others may be transplanted in Lines about six Inches apart, at two Feet and half asunder. But the nearest Line of those planted from the Wall, must not be nearer to the first than six Feet at the nearest. A Plantation of this Kind will produce a much greater Crop, and earlier,
than

than those set with the Dibber, and not transplanted afterwards.

In *March* when your Beans are in full Blossom pinch off their Tops, and carefully cut away all Suckers that may break out, and grow from the bottom of their Roots; which if carefully perform'd, as they first appear will cause the mother Stem or Stalk to set its Bloom and produce its Beans a fortnight or three Weeks sooner than if let run, without being top'd and sucker'd.

And as soon as the Stalks are cleared of their Beans, pull them up, and clear the Ground; or if you cut them down close to the Ground, they will break out again, and produce a second Crop.

By the time those planted under your Walls are gone, the others planted from the Walls will succeed, and produce such a plentiful Crop, as will afford a very considerable supply to a Family. And that our Table may be always furnish'd; 'tis best to plant some others in open Quarters, at different Times, *viz.* Some about the middle of *December*, other about the middle of *January*, and again about the middle of *February*, at which time we may begin to plant our noble large Bean, called the *Windsor* Garden Bean, and continue Plantations thereof during the Months of *March*, *April*, *May* and *June*: And if the Weather happens to be very dry at any of those Times of Planting, 'tis best to soak the Beans in Water before they are planted, as also to water the Drills wherein they are sown; for in these hot Months, 'tis better to drop them in Drills at five or six Inches apart, than to plant them with Dibbers, as in the Spring.

If the Seasons continue very hot, be sure to let them have Water enough, and particularly when in Blossom and Fruit, 'twill very well answer your Labour.

S E C T. IV.

Of Balm.

1. Its Names.

BALM is called in Greek *μελισσόφυλλον*, of Pliny *Melittis*; in Latin *Melissa* *Apiastrum* and *Citrage*, of some *Melissophyllon* and *Meliphyllon*, in Dutch *Consille de greyn*, in Italian *Cedronella* and *Arantiata*, in Spanish *Forongil*, in French *Poucyrade ou Melisse*; and in English *Bawme* or *Balm*.

2. The Description.

The common Balm, called in Latin *Melissa*, is very well known to most People, being valued by many for its fragrant Smell, which is not much unlike that of the Citron: But besides the common Balm, there is another Kind much more valuable called *Melessa Turcica*, the *Turky* Balm, whose Leaves are of a more acute Form and more indented, producing small Clusters of purple Flowers. The Root is small, and dies at the very first approach of Winter, 'tis propagated by Seed sown in *April* or *May*, and loves a rich Soil.

3. Their Temperature.

Balm is hot and dry in the second Degree, according to *Avicen*.

4. The Medicinal Virtues.

Balm being infused in Wine, and that drank, comforts the Heart, drives away Melancholy, and is good against the Bitings of venomous Beasts.

Serapio affirms it to be comfortable to a moist and cold Stomach, to stir up Concoction, to open the Brain and drive Sorrow and Care away.

Avicen, on the Infirmities of the Heart, affirms that Balm makes the Heart merry and joyful, and strengthens the vital Spirits, which I suppose good Wine will do alone also.

5. The

5. *The Parts for Use.*

The young Shoots, or tender Leaves.

6. *The Quantity is at Pleasure.*

7. *Its Cultivation.*

Balm is a very useful Herb for Distilling, as well as for using in Wine, and therefore should never be wanting in our Kitchen Garden. 'Tis propagated by parting the Roots any time in the Spring, and will thrive very well in most Kinds of Garden Soils.

S E C T. V.

Of the Beet.

THE two Kinds of Beets being already described in Section III. Part 1. with their Culture, &c. I need not say any more thereon, but that they are now in their greatest Perfection, and are of very great Service in Soups, &c.

S E C T. VI.

Of Borage.

1. *Its Names.*

BORAGE is called by many *Borago*, of the ancient Writers βούγλωσσον, which is in *Latin Lingua Bubula*: *Pliny* calls it *Euphrosinum*, because it makes a Man merry and joyful, as testified by the old *Latin Verse*,

Ego Borago gaudia semper ago.

Thus English'd

I Borage bring always Courage.

'Tis called in *High Dutch Burretsh*, in *Low Dutch Bernagie*,
in

in Italian *Boragine*, in Spanish *Boraces*; and in English *Borage*.

2. The Description.

Of *Borage* there are four different Kinds, viz. The Garden *Borage*, call'd in Latin *Borago hortensis*; the white flower'd *Borage*, *Borago flore albo*; the never dying *Borage*, *Borago semper virens*; and a fourth Kind whose Leaves are like unto the last, but much thinner, lesser, rough and hairy, dividing its self into many Branches at the Head of the Root, which produce very beautiful fair red Flowers. And altho' there is this variety of *Borage*, yet the three last are to be rejected; the first being for our use only. The Leaves of Garden *Borage* are broad, rough and of a very deep green Colour, and generally lying flat upon the Ground: From the Head of the Root, amongst the Leaves, rises a Stalk, sometimes about eighteen or twenty Inches high, divided at the upper part into many Branches, producing beautiful blew Flowers, each composed of five Leaves, which are succeeded by Seed, ripe in the Autumn.

3. Its Temperature.

Borage is evidently moist, and temperately hot and cold, or rather a mean between both.

4. Its Medicinal Virtues.

The Flowers being eaten in Sallets, exhilarate and make the Mind glad.

The Leaves being boiled in Soup make the Body soluble.

Dioscorides and *Pliny* affirm, that the Leaves and Flowers being put into Wine and drank, drive away all Sadness, Dulness, and Melancholy, and make Men and Women glad and merry.

A Syrup made of the Flowers comforts the Heart, purges Melancholy, and quiets the phrantick or lunatick Person.

The Flower of *Borage* made up with Sugar performs all the aforesaid, with greater force and effect.

The tender Leaves being eaten raw in a Sallet, with other Sallet Herbs, create good Blood, and especially in those that have been lately Sick.

5. *The Parts for Use.*

The Flowers and tender Leaves, when eaten in a Sallet, the Leaves, or young Tops with their Blossoms, when used for a cool Tankard, in Wine, &c.

6. The Quantity of either is at Pleasure.

7. *Its Cultivation.*

Borage delights in good rich mellow Loam, and is raised from Seed sown in the Spring.

S E C T. VII.

Of Bugloss.

1. *Its Names.*

BUGLOSS is thought to be a kind of *Borage*, degenerated therefrom; but as *Dioscorides*, *Pliny*, and other ancient Fathers have divided them, I shall therefore follow their Rule of *Bugloss*: There are two Kinds, the one called *Buglossa*, and *Buglossa Domestica*, or Garden *Bugloss*; and the other *Lange de beefe*, in *Latin Lingua bovis*, and *Buglossum luteum*, and of some *Hieracio cognatum*, and *Buglossa Sylvestris* or wild *Bugloss*.

2. *Their Description.*

The Leaves of the common or Garden *Bugloss*, are longer than those of the *Borage*, sharp pointed, rough and hairy, and longer than the common size of Beet Leaves.

The Stalk rises to the same height as the *Borage*, and is divided into many Branches also, which produce Flowers of a bluish Colour, something inclinable to a purple before they are open'd, and when quite open'd, more inclinable to a blue.

The Root is long, thick, gross, and of a long Duration. The other wild Kind, called *Lange de beefe*, is much less, but the Leaves more rough, like unto the Tongue of an Oxe, from which it took its Name.

3. *The*

3. *The Temperature and Virtues.*

The Leaves and Flowers are of the same Temperature as the *Borage*, and their Virtues also.

4. *The Parts for Use.*

The same as of the *Borage*.

5. *The Quantity is at Pleasure also.*6. *The Cultivation.*

'Tis encreased as the *Borage* from Seed, but its Root doth not die in the Winter as the *Borage*, wherein is the only difference between them.

S E C T. VIII.

*Of Burnet.*1. *Its Names.*

OF Burnet there are two Kinds, the one called Garden Burnet, and in *Latin Pimponella Hortensis*, and the other *Pimpinella Sylvestris* or wild Burnet.

The later Herbarists call Burnet *Pimpinella Sanguisorba*, that it may differ from the other, and yet 'tis called by many *Sanguisorba*, and *Sanguinaria*.

Gesner chuses to call it *Peponella* of the smell of Melons to which it is like, and by others 'tis called *Pimpinella*, or *Bipennula*, and *Solbastrella*; in *High Dutch* 'tis called *Kolbleskraut*, her Gots *Bartlin*, *Blutkraut*, *Megelkraut*, in *French* *Pimpennelle*, *Sanguisorbe*, and in *English* *Burnet*.

2. *The Description.*

The Leaves of Garden Burnet are very small, indented, and thick set upon single Stems or Ribs, each Leaf opposite to another, and withal somewhat hairy.

The Stalk rises from the Head of the Root, bearing divers of those composed Leaves on its Sides, dividing themselves into

into several Branches towards their Tops, whereon they produce little round Heads of small brown purpled colour'd Flowers which are succeeded by Seed, closely placed together. The Root is, in make, not much unlike that of a small Parsnip, and smells something like a Melon.

The wild Burnet is much larger in all its Parts, but has not that pleasant smell as the other.

3. The Temperature.

Garden Burnet is temperately cold.

4. The Medicinal Virtues.

The tender Leaves being eaten in a Sallet, with other Herbs, make the Heart merry and glad, as also being put into Wine, to which it yieldeth a pleasant Taste in Drinking.

5. The Parts for Use.

The young Sprigs or Shoots in Wine, the tender Leaves in Sallets.

6. The Quantity is at Pleasure, as of Balm, Borage, and Bugloss.

7. The Cultivation.

Burnet produces its Blossoms from *June* to the end of *August*, at which time, or very soon after, the Seed is ripe, which may be sown in the Spring, and the young Plants, when large enough, transplanted out in Borders at six or eight Inches distant from one another.

S E C T. IX.

Of Chervil, Cresses, Corn-Sallet, white Mustard, Radish, Spinage and Turnip.

CHERVIL being an excellent Sallet Herb, is still to be cultivated, but need not be sown upon old decayed hot Beds under Glasses, &c. as before. The Season being now

warm

Q

Warm enough for its Growth in the natural Borders, as the heat of the Spring advances, make choice of such Borders to sow your Seed in, as are not so fully exposed to the heat, as a *South* Border.

When you find your young Salleting begins to start, or run away as soon as out of Ground, then remove your place of raising to some *East* Border, which the Sun will depart from about eleven in the Morning, and your Salleting will be much finer: And whenever you find that in very hot Weather your Salleting begins to run, as before in the *South* Border, then remove to a *North* Border, wherein you may raise it with Pleasure.

N. B. That what is here delivered in relation to the sowing of Chervil, the same must be understood in the sowing of Cresses, Corn-Sallet, white Mustard, Radish, Spinage, Turnip, Lettuce, &c. and all other small Salleting in general.

S E C T. X.

Of Indian Cresses.

INDIAN Cresses, called in *Latin Nasturtium Indicum*, is raised from Seed sown early on a hot Bed, at the back of Cucumbers, Melons, &c. which produce great plenty of Flowers very early, that are very beautiful and agreeable in our Sallets.

There are two Kinds of *Nasturtiums*, the one of a small Growth, which is that commonly raised in a Hot-Bed, and the other of a larger Kind, which would run beyond the Bounds of a Frame if planted therein.

And altho' the small Kind is raised in a Frame for the sake of having them early, yet it will grow very well in the natural Earth, as also will the larger Kind.

The Seeds which succeed the Flowers, being gathered before they are fully ripe, and pickled, make a fine Sallet in the Winter.

When

When this Plant is planted at the foot of Standard Trees, or close under Hedges of Elm, Hornbeam, &c. they make a very agreeable and pleasant Figure, being tyed up in and about the same. Their Branches are many, and incapable of supporting their own Weight, and therefore require help.

Their Nature is, to extend themselves a very great way from their Roots, and delight in a rich moist Soil.

Their Leaves are of a round Form and light green Colour, and in Taste and Smell like unto the Garden Cresses.

The Flowers are dispersed throughout the whole Plant, of a yellow Colour, intermixed with Purple; having a Spur or Tail, exactly as the Larkspur or Larkheel, but much larger. The Seed is rough, of a brown Colour, and in Form very like unto the Beet, but smaller.

SECT. XI.

Of Cucumbers.

THE Cucumbers raised on hot Beds, having hitherto plentifully furnish'd our Tables, we may now make small Holes in the natural Ground, and be plentifully served therefrom.

The only care to be observed herein is, that the Ground be tolerably rich, and if not, to be made so.

The Manner of performing the same is as follows, First, set out the distance of your Holes, which ought to be about four Feet (square) from one another; then if the Ground was dug before, open small Holes about eighteen Inches over, and one Spit deep, and therein throw a Spit or two of good rotten Horse dung, which work in and mix very well with the Earth, and having work'd it very fine, form it with a Concavity like unto a Basin, as termed by Gardiners, viz. hollow like unto a Dish to receive the Water: And therein sow at least ten or a dozen Seeds, at about two Inches apart from each other, and the like Depth; for 'tis much better to have too many Plants than too few; and if the Season be very dry at the time of sowing, 'twill not be improper to give the

Seed a gentle refreshing of Water, as also at all times when above Ground, if the Weather proves hot and dry.

About the middle of *May* is a very good time to sow, in the very same manner, such Quantities as you may have occasion to pickle, which will also furnish your Table, during the Months of *July* and *August*, plentifully: For be as careful as possibly you can, some will escape your Eye, which will appear the next time of gathering and be fit for the Table.

'Tis a Practice amongst many to put the Seed, at the time of sowing, all in a heap, which causes the Plants to grow in a Cluster, but in my Opinion cannot thrive so well, as when each Plant is about two Inches apart. There is another Practice amongst many Gardiners, to sow their Seed for Pickling on a gentle Hot-Bed, and afterwards transplant them into their Holes at the distances aforesaid. Now I confess that this Method is a very good one, when the Land design'd for them is not clear of its first Crop, at the Time when 'tis the Season for the Seed to be sow'd; for whilst the Crop is clearing away, the Seed is coming up, and when quite clear'd, the Plants may be taken up with Earth, and transplanted therein, and the Land fully crop'd again.

But where Land has not a Spring Crop in like manner 'tis much better, and less extensive, first, to sow the Seeds in the Holes where they are to remain as before directed, and thereby the Trouble and Danger of transplanting is saved.

When young Cucumbers are thus transplanted, they should be shaded with Flower-Pots, &c. for the space of three or four Days, in which time they will have struck Root, and be able to withstand the heat of the Sun.

And as I directed in Sect. XV. Part 1. continually to keep the Earth about their Roots from binding, by often removing it gently; so you must observe the very same herein, and when they are arrived into their third Joint, to peg them down, and raise the fresh Earth amongst their Stems, which will cause them to strike fresh Roots therein, and grow away strongly.

As soon as ever you observe them to turn out Fruit, you must not fail of giving them plentiful Refreshings of Water, otherwise the Fruit will dwindle and die away, and you'll be disappointed of your Hopes.

The.

The best Kind for pickling is the long prickly Cucumber, the choicest of which leave for Seed, as before directed in Sect. XV. Part I.

S E C T. XII.

Of the Collyflower.

THE Collyflower is called in *Latin Brassica florida*, and *Cauliflora*, and in *Italian Cauliflore*, is one of the most delicious boil'd Sallets that we have in *England*, and the most difficult to have of a good Kind.

The greatest Care herein, is to be well furnish'd with good Seed; otherwise all the Labour will prove unsuccessful: But that being taken for granted, about the beginning, or tenth Day of *August* at latest, prick or dig up a small Border that is in tolerable good Heart, and therein sow your Seed; or if you have any decay'd Hot-Bed, 'tis better to make use of that, in which sow your Seed, giving it when dry gentle refreshings of Water, and when the Plants are come up, and in their first Leaf, exclusive of their Seed Leaves, then transplant them upon some other well prepared Bed, at about three or four Inches distance from each other; and therein let them remain till near *Michaelmas*, at which time 'tis best to transplant them out for good in the Places where they are to blossom: And for fear of losing any by Frosts, &c. plant in every place where you intend one to continue, five Plants, and in such a Compass, as all to be cover'd with a square or Bell-Glass during the Severity of the Winter: And if they all endure the Winter's cold, 'tis a very easy thing for the Gardiner, with his Trowel, to take up and transplant such as are unnecessary in that place, in some other prepared part of the Garden.

But that we may not be disappointed of a Crop, in Case we should lose all those planted out at *Michaelmas* under the Glasses, we must, at the same time, transplant other Plants, either on a very warm *South* Border, to be hooped and covered over in time of Frosts and Snow, (which last is the most preju-

prejudicial to them) or on an old decay'd Hot-Bed, where we can place over them a Frame and Glasses to preserve them; or in large Flower-pots, to be lifted into the Greenhouse, &c. during all such hard Weather; and in the Spring, when all the cold Blasts are blown over, transplant them out for good in Rows about two Foot and half apart, and the Rows three Feet asunder.

The Soil wherein you plant Collyflowers ought to be very rich and naturally moist, and for want of the last, great Care must be taken to give them plenty of Water, and always clean from Weeds.

When Collyflowers are planted out for good at *Michaelmas*, and withstand the Winter's Frosts and Snow, they never fail of producing better Flowers, and much sooner than those planted out in the Spring; for whilst they are recovering their Removal, the other is going forward, getting very strong Roots, which enable them to produce these Flowers about three Weeks sooner than the other.

However, altho' they don't come in so very soon as the other, yet they come in a very good time to succeed them, and therefore I advise their being planted at both Seasons.

And that your Table may not be destitute of this matchless Sallet, I advise, that at the beginning of *March* you sow more Seed upon a gentle Hot-Bed, which when in their first Leaf transplant out at about three Inches apart, and as the heat of the Spring comes on, make them more acquainted with the Air; so that when they are large enough to transplant out, they may be perfectly hardy, and not any ways unacquainted with their Removal.

About the middle of *April* we may sow another small Quantity of Seed in the natural Ground, which being ordered as the others before directed, will produce Flowers that will succeed the former, as well as produce large Flowers in the Autumn.

When their Flowers begin to appear, break down over them two or three of their Leaves, to preserve them from the Rains, and heat of the Sun, which cause them to be either green or yellow, instead of a beautiful white; and during all this Work, great Care must be taken to keep them well water'd, for 'tis what they are great lovers of; and especially at first

planting in *May*, &c. If the conveniency and quantity of your Water is such, that you can flow their Alleys between them, 'twill add a much greater Nourishment to them than the common way of watering the Holes only.

It often happens, that many of the last Plantation, if planted in a shady Place, will not produce their Flowers till after *Michaelmas*, at which time such Plants should be taken up with the Earth to their Roots, and planted upright in Sand, within a Greenhouse, &c. giving them plenty of Water at planting, which will produce very good Flowers fit for use in the Winter, even until *Christmas*, as I have often experienced.

To continue a good Kind of Seed, make choice of some of the very best and earliest Flowers, which let run to Seed, securing them from the Injuries of Winds, by Stakes, &c. And as soon as the Seed Vessels and Seed are fully perfected, cut away the whole Stem, and carry it into your Greenhouse, and there let it be thoroughly dry'd before you rub or thrash it out: For as Mr. *Bradley* ingeniously observes, 'tis not necessary to leave the Seed upon the Plants till the Pods are dry, lest they shed the Seed, or be damaged by Rains, Mildews, &c.

S E C T. XIII.

VIX Of Dill E 2

Its Names.

DILL is called in Greek *ἀνθον*, in Latin *Anethum* and *Anetum*, in High Dutch *Dyllen*, in Low Dutch *Dille*, in Italian *Anetho*, in Spanish *Eneldo*, in French *Anet*, and in English *Dill* and *Anet*.

2. Its Description.

Dill for the generality produces a little Stalk, about sixteen or eighteen Inches high, round in form, and jointed like unto Fennel, as also are the Leaves which are finely cut, but much smaller. The Flowers are very small and of a yellow Colour, growing in spokie Tufts like unto those of Parsnips, but not thing near so large.

The

New Principles of Gardening.

The Seed is round, flat and thin, in form very like Parsnip Seed, and has a smell very like unto Caraway Seed.

3. *Their Temperature.*

According to *Galen*, Dill is dry in the end of the first, and hot in the end of the second Degree.

4. *The medicinal Virtues.*

The Decoction of the Tops of Dill dried, and likewise of the Seed, being drank, allays Gripings and Windyness, and provokes Urine.

5. *The Parts for Use.*

The green Tops and Blossoms in *July*, being then used in the pickling of Cucumbers.

6 The Quantity is at Pleasure, in proportion to the Quantity of Cucumbers pickled.

7. *Its Cultivation.*

The Seed being ripe about the end of *August*, may be sown any time in *February* or *March*, and a very small Quantity is sufficient for a large Family.

S E C T. XIV.

*Of French or Kidney Beans.*1. *Their Names.*

THIS Herb is called by *Hippocrates*, *Diocles*, *Theophrastus*, and most of the other ancient Writers *δόλιχον*, and some others call it *λόβον*, and *λόβιον*, in *Latin Siliqua*.

Dioscorides calls it *Smilax*, because it climbs up Branches, Sticks, &c. as *Smilax* doth. Others call it *φασέολον*, a Diminutive derived from *φάσηλος*; for *φάσηλος* and *φασέολος*, are not one and the same Pulse called by different Names, as some suppose; but are different from one another, as *Galen* has very plainly proved, in his first Book of the Faculties of Nourishments.

ments. The *Dutch* call it *Turcksboonen*, the *French* *Feues de Romme*, and the *English* call it *Kidney Bean*, in regard to the *Bean* being of the form of a *Kidney*. It is also called *Sperage Bean*, *Faselles* or long *Peafon*, *Garden Smilax*, which I suppose to be taken from *Dioscorides*, who, as I said before, named it *σμίλαξ κηπαία*, viz. *Smilax hortensis*, *Garden Smilax*; the *English* also call it *Roman Bean*, and many *French Bean*.

2. The Description.

The white *Kidney Bean*, called in *Latin* *Phaseolus albus*, hath long and small Branches growing very high, taking hold with its clasping tendrels upon Poles, Sticks, Branches of Trees, &c. as Hops do, for without such Supporters, they are not able to bear their own Weight, and therefore run rambling upon the Ground, which causes them to be almost fruitless or barren, to what they are when stick'd with Branches of Trees to climb upon. Their Leaves are very round on that part whereunto the Stalk is fix'd, and the opposite part very acute. Their exterior form is very like unto the *Ivy* (but are not smooth) each Stem or grand Rib having three Leaves, the one at the end thereof, and the others near thereunto, opposite to one another. The Flowers are produced from the upper part of those grand leaf Stalks, at their communication with the grand Stem or leading Branch, and are of divers Colours, as white, red, pale, mixt, &c. which are succeeded by long Cods, whereof some are straight and others crooked, wherein their Seed or Beans are contained, and when ripe are of a shining white Colour.

But besides this white *Kidney Bean*, there are many other Sorts cultivated in our Gardens, and I believe more for Variety's sake, than that they are better, or even as good, as the white *Kidney Bean*: However, as most ingenious Gardiners think it worth their while to give them place in their Gardens, I shall not dispute them a place herein, of which the first is the *black Kidney Bean*, called in *Latin* *Phaseolus niger*; the second, the *red Kidney Bean*, called in *Latin* *Smilax hortensis rubra*; the third, *Smilax hortensis flava*, or the *pale yellow Kidney Bean*; the fourth, the *Kidney Bean* of *Brasil*, called in *Latin* *Phaseolus Brasiliensis*, and the *Party-colour'd Kidney Bean* of *Ægypt*, called *Phaseolus Ægyptiacus*.

R

3, Their

3. *Their Temperature.*

The *Arabian Herbarists* allow them to be of a hot and moist Nature, but I don't find that our *English Herbarists* have taken any Notice of their Temperature.

4. *Their medicinal Virtues.*

The Cods being boiled when young make an excellent Sallet, they gently loosen the Belly, provoke Urine, create good Blood, and are very great Nourishers.

The Beans themselves, when ripe and dry, are eaten by many, being boiled and butter'd, but are very unwholesome.

5. *The Parts for Use.*

The Cods when about half grown, so as, when broken, not to have Strings on their Sides, holding the parts together: And when used for pickling, they must be very young, and fresh gathered.

6. *The Quantity is at Pleasure.*7. *Their Cultivation.*

Altho' I did not mention the different Kinds of white *Kidney Beans* in the Description, yet I cannot proceed to their Culture, before I explain the same.

Of the white *Kidney Beans* there are divers Kinds, which to mention in general, would be both a needless and endless Work, and therefore shall describe but one Kind; for in fact, I cannot recommend any other, and that is the true *Battersea Bean*, which is of the same form as the others, but very small, 'tis a very great Bearer, comes early, and of an excellent delicious Taste; all which Qualifications are not to be found in any other Bean of the *Kidney Tribe*.

This Kind of *Kidney Bean* delights in a light, warm, fresh Soil, (and not in wet, for that is present Death to them) if it takes them before they are above Ground; therefore to sow them very early in wet Weather, is needless, for 'tis very seldom or ever that they escape being rotted by the wet: But if the Spring is not over dry, we may begin to sow some for our first Crop, about the latter end of *March*, or a Week sooner, pro-

provided you give your self the trouble to sow them in the following manner, *viz.*

About the middle of *March* (your Ground being dig'd) draw Drills (under, or near unto a *South Wall*) at about two Feet and half or three Feet apart, or rather double Drills, within a Foot of one another, and then leaving a space between them of four Feet, wherein may (at the Season) be planted a Crop of Savoy's to succeed them when done bearing. Your Drills being thus drawn drop in your Beans about an Inch distant from one another, and cover up the Drills with the Earth, leaving a small Ridge over the Beans to throw off the Rains.

This being done, strain a Line within three Inches of the Beans in the Drills, and with your Spade chop out, and open a small Trench, about three or four Inches deeper than the bottoms of the Drills, which leave open till your Beans are above Ground, and got out of their Seed Leaves, for then they are past all the Dangers that can happen from wet; and then fill them in again and earth up the young Plantation as is usual.

The Reason of my advising those Trenches, is to draw off the great Rains, &c. (if any should happen) from the Beans, which, if invaded by it, would destroy them. This Method of opening Trenches, I have practised with very great Success in divers Springs, and often in very wet ones; for let the Spring be ever so wet, these Trenches never fail of preserving the Beans from it. When you make use of single Drills, 'tis best to draw them *East* and *West*, that the Trench may be made on the *South* side, the better to receive the advantage of the Sun, to keep dry that part of the Drill next thereunto. But when you make use of double Drills, they must be drawn *North* and *South*, that the Morning Sun may dry that Drill next to the *East*, and the Afternoon Sun that next to the *West*: For was you to draw double Drills *East* and *West*, the hindmost Drill towards the *North* could have very little or no help from the Sun in keeping it dry.

As soon as you find your Beans are in a thriving State, then they must be thin'd, and left at about five or six Inches apart, and those which you draw from them may be transplanted at the same Distances, in some other warm part of your Garden.

The Reason why I advise their being sown so very thick is, that in case some should fail by badness of Seed, wet, &c.

there should, notwithstanding those Accidents, be a full and sufficient Crop, which otherwise could not be, if sown at their proper Distance, as they ought to grow in, when such Miscarriages happen.

As soon as they begin to run out with their Tendrels, they should be stick'd with Sticks, Branches, &c. about four or five Feet in height, whereon they will soon take hold, and run up without any Assistance.

When their Cods are arriv'd to a sufficient magnitude fit for the Table, they must be gather'd, and not suffer'd to hang on till very old, which stops the Growth of the Vines, and hinders a further Product; for the nature of these Kinds of Beans are such, that the oftner you gather and keep them down, the more they prosper and bear. This Sort of *Battersea Bean* never runs up so high as another Sort of white *French Bean*, (which is also a very good Kind) whose Form is the same as the other, but much larger, and its Nature is such, that if it is not stick'd, it will not produce any Quantity of Cods, to what it never fails of performing, when stick'd. I have had plentiful Crops of this Kind, which have ran up Sticks upwards of eight Feet high, producing great Quantities of Cods at their several Joints as they go up. It delights in a very rich Soil, and to be kept very moist during the time of its blooming and bearing.

The duration of one Crop of *French Beans* being but for the space of three Weeks, or thereabouts, we must therefore every three Weeks, after our first time of sowing, sow other Pieces that will be sufficient for our Use, until the middle or end of *July*, to succeed one another throughout the Summer. And if the Seasons prove very dry at the times of sowing, and the Weather very hot, then 'tis best to water the Drills very well, before you sow or drop the Beans therein, which will contribute very much to their immediate Growth, but you must not water them after being sown, before they are out of Ground, lest it rot them.

To have *Kidney Beans* sooner than these Methods here laid down are capable of producing, you must make gentle Hot-Beds, and thereon raise them at any time, from *August* until *March*, wherein the greatest Care is, to give them all the Air that can possibly be allow'd them, or otherwise they will decay and be worth nothing.

S E C T.

S E C T. XV.

Of the several Kinds of Lettice.

TH E Season being sufficiently warm in *March*, we may then sow all sorts of Lettice, and repeat the same every three Weeks or a Month throughout the Summer, that we may have a constant Supply, by their succeeding one another.

And as I advised in the sowing of Chervil and other small Salletting (Sect. IX.) to remove to shady Borders as the heat increased; so I must also advise herein.

The best Kinds of Lettice for our Table, are the Goss-Lettice, the *Silesia* Lettice, divers Kinds of *French* Lettices, the *Imperial* Lettice, the *Roman* Lettice, and the *Brown Dutch* Lettice, which in general (the first excepted) cabbage very well, and are extremely fine tasted.

The Goss-Lettice is not inferior to any, and of an excellent Flavour; but generally requires the Gardiner's Assistance to tye up the Leaves with Bast-mat, or otherwise it seldom is cabbaged or fit for the Table.

In the transplanting of all the several Kinds of Lettice (which contributes very much to their cabbaging, as has been before observed in Sect. XXI. Part. I.) great Care must be taken to allow them proper room for their Growth: As for Example, an *Imperial Lettice* requires more Liberty for its Growth, than the *Brown Dutch*, and the *Silesia*, more than the *Capaseen*, &c. Therefore that we may not croud our Plantation, and damage it thereby, or plant too thin, whereby we lose much Ground, which can't well be spared in many Gardens, observe the following Directions, viz. Plant the *Capaseen* Lettice about four Inches apart from one another, the *Brown Dutch* at six Inches, the *Roman* and *French* Lettices at eight Inches, the *Silesia* at nine or ten, as also the Goss-Lettice, and the *Imperial* at one Foot, and if the Land is very rich at fifteen Inches every way. And if this Method of planting be truly executed, and the Lettices supply'd in dry Seasons with plenty of Water, you will be sufficiently furnish'd with the best Kinds of Lettices in their greatest Perfection.

S E C T.

S E C T. XVI.

Of Onions.

THE Onions necessary for our Sallets are those that are very young, and that we may be well furnish'd with them, they must be sown every Fortnight or three Weeks at most, by which Means they will be always very young, tender, and fit for our Purpose.

S E C T. XVII.

Of Orange and Limon Seedlings.

THE seedlings of Oranges and Limons being raised, and eaten in Sallets, (as before directed in Sect. XXVI. Part the 1st.) are very grateful to the Stomach; and altho' I mention them here again, being proper amongst our Sallets for these Months, yet their Culture is the very same as before, the difference of the Weather's heat only excepted.

S E C T. XVIII.

*Of Purslane.*1. *Its Names.*

PURSLANE is called in Greek *ἀνθεράχυν*, in Latin *Portulaca*, in High Dutch *Burkelkraut*, in Italian *Procaccia*, in Spanish *Veraolagus*, in French *Poupier*, and in English *Purslane* and *Porcelaine*.

2. *Their Description.*

We have two Kinds of Purslane cultivated in our Gardens, the

the one called the green, and the other the golden Purslane, but are both vulgarly called *Garden Purslane*.

The Stalks of both Kinds are in their Form like unto one another, as also their Leaves, the difference being in their Colour only; and to describe their Forms of Leaves, Stalks, &c. would be but a needless Work, they being well known to every one that delights in Sallets, and therefore I shall proceed to their Temperature.

3. *Their Temperature.*

Purslane is moist in the second Degree, and cold in the third.

4. *Its Medicinal Virtues.*

Purslane being eaten in Sallets, cools a hot Stomach, rectifies inflamed Blood, provokes Urine, and is very good for the Bladder and Kidneys.

The Juice of Purslane being drank, stops the bloody Flux, spitting of Blood, and all other Fluxes whatsoever.

5. *The Parts for Use.*

The young and tender Shoots or Tops.

6. *The Quantity in a Sallet.*

This Sallet Herb not being in Season until the Weather begins to be very warm, and of such admirable Virtues, is therefore eaten in much greater Quantity, than any other sort of Sallet Herb. The common Quantity is six times as much as of any other, young Radish excepted.

7. *Its Cultivation.*

Purslane of both Kinds are raised from Seeds sown in *March* under Glasses upon a decay'd Hot-Bed, or in *April*, in some very warm place in the natural Ground: It delights in a rich Soil, and to be plentifully water'd in hot Weather.

S E C T. XIX.

Of Pease.

1. Their Names.

THERE being divers Kinds of Pease, are therefore called by many Names, and are distinguished by their several Degrees of Magnitude, as well as by the Persons or Places by whom they were first cultivated.

The great Pease are called by *Theophrastus* and other old Writers, in *Greek* *πίσον*, in *Latin* *Pisum Romanum*, or *Pisum majus*, in *French* *des Pois*, in *Low Dutch*, *Roomscheerwiten*, and in *English* *Roman Pease*, or *Pease of the Garden*: We have many other Sorts much smaller, that are cultivated in the Gardens also, which the Ancients call'd *Pisum minus*, and in *English* *little Pease*, or the *common Pease*.

But since that Pease were first cultivated in Gardens they have been greatly improved, and now consist of a great many new Kinds, which our ancient *Herbarists* and *Gardeners* never knew, or heard of.

The several Sorts of Pease now cultivated in Gardens are as follow.

First, of small Pease, *viz.* such as the Ancients called *Pisum minus*, *viz.*

The several Sorts of *Hotspurs*, of which those are the best that were first raised and improved by Mr. *Cox*, late of *Kew Green* near *Richmond* in *Surrey*, Nursery Man, deceased: And another Kind, called and known by the name of *Master's Hots*, first raised and improved by an ingenious Gardiner and Nursery Man of that Name, now living at *Strand in the Green*, near old *Brentford* in *Middlesex*. The other Sorts of short and long Hotspur Pease, are the *Reading Pease*, *Rose Pease*, and *Dwarf Pease*.

Secondly, of large Pease, such as the Ancients called *Pisum majus*, *viz.*

- (1.) The *marrow Pease*, vulgarly called *marrow fat Pease*.
- (2.) The *sugar Pease*, vulgarly called *sugar Polands*.
- (3.) The *grey or blew Roncivals*, or *Dutch Admiral*, and
- (4.) The *Spanish Marratta*.

And besides all these, there are many other Kinds, which are very difficult to distinguish from the abovenam'd, some few excepted, whose Names I shall forbear to mention, knowing that these Sorts are not only the very best Kinds, but will suffice for any Garden, and plentifully furnish the grandest Table required.

2. Their Description.

To describe the Forms of the Leaves, Shoots, Cods, and Seed would be very unnecessary, they being so well known; therefore I shall only take notice of the difference of their Growth.

First then, all Sorts of Hotspurs and *Readings* are of a midling Growth, rising (when sticked) about two Feet and half in height, producing their Blossoms at their several Joints, from the bottom to their Tops, which are of a white Colour, with a purple spot in their middle. The first Blossoms are from the first or second Joints, which at first appearing before they are in Blossom, are then said to be in *Bell* (*a term used by Gardiners only*.) The Blossoms of all other Pease that are white, are of the same Colour, but the Blossoms of those Pease as are grey, or any other Colour, are of a transparent blew on the outer Parts, and a very fine purple mix'd with crimson within.

The *Rose Pease*, so called in regard to their Blossoms, which are produced at the extreme part of the Haulm (growing about the same height as the Hotspur) in a round Tuft or Cluster.

The *Dwarf Pease*, so named from the smallness of their Growth, their Haulm being seldom above one Foot in height; 'tis a great Bearer, and a very sweet kind of *Pea*. There are a very short kind of Dwarf Pease, that I have raised very early on gentle Hot-Beds, which have produced great Quantities during the Months of *February*, *March* and *April*, that seldom rise higher than six or eight Inches, and altho' so very small,

yet they will yield very near as many Pease for the Quantity of Ground, as any of the largest Kinds.

The other Kind of Pease are in general of a much stronger Growth, and will, when stick'd, climb up five or six Feet high, producing great Quantities of Cods as they ascend.

3. *Their Temperature and Virtues.*

As to their Temperature of Heat or Cold, neither the ancient or modern *Herbarists* have discovered in publick; and 'tis my humble Opinion that they are neither hot or cold, but of a Temperature between both.

Galen, in his Book of the Faculties of Nourishments, says, that their whole Substance are very near like unto that of *Lisbon* and Garden Beans, but are not so windy, and withal, have not that cleansing Quality as the Bean hath.

4. *The Parts for Use.*

The young Pease or Seed, when near full grown, whilst green and tender, before they begin to turn, of a very pale white Colour, and mealy when boiled.

The tender Leaves, when about three Inches high, are an excellent boiled Sallet.

5. *The Quantity of either is at Pleasure.*

6. *Their Cultivation.*

All the several Kinds of Pease delight in good fresh Land, rather than that which is very rich with Dung, which causes them to grow very rank.

The Season for sowing the first Crop is about the middle of *October*, or beginning of *November*, and sometimes not till *December*, which I think is rather too late to have them early, and especially when the Winter proves very mild: But however, for fear it should not, 'tis best to sow at both Seasons, and then, if the first stands the Winter's Frost, that Crop will come very early in *April*, and be succeeded by the other in *May*. The Hotspur Pease are the Kinds we sow for our first and second Crops, the *Readings* for the third, the marrow Pease, sugar'd Pease, &c. for the fourth, and the dwarf

dwarf and marrow Pease, &c. for the remaining part of the Summer.

The Hotspur Pease for the first and second Crops may be sown at the times aforesaid in Drills, about two Feet and half distant from each other, of a tolerable thickness in the Drills; for you must always remember that you are not in danger of the Frosts only, but of Mice, Crows, and Slugs, against which you must carefully guard, otherwise few will come to your share; and for these Reasons 'tis best to allow Seed enough at first sowing.

When your Pease begin to appear above Ground, be diligent in surveying them every Morning, and to destroy all the Slugs you can find near them.

Slack'd Lime, and Sea Coal Ashes strewed upon the Drills, before the Pease are come up, will prevent their being destroy'd; be careful to do the same after Rains; and when they are grown about four Inches high, draw up some Earth on each side close to their Roots to preserve them from cutting Winds, &c.

It has been the common Practice for many Years amongst Gardiners, to sow one Drill of Pease close under a *South*, *East*, or *West* Wall, and very often under every one, when they have them; but I cannot recommend that Method, for it seldom fails of doing the Fruit Trees very great Damage: But however, I am not for entirely banishing of Pease from warm Walls, which cause them to come much earlier; and therefore I advise that they be sown under such Walls, but not nearer than three Feet at the least.

When you sow Pease in open Quarters, 'tis best to draw their Drills *North* and *South*, that when the very cold and blasting *Eastern* Winds do blow, they may be defended therefrom by small Ridges or Banks drawn up with a Hough on the *Eastern* Sides thereof.

The usual distance that Hotspur Pease are sown, is about two Feet and half each Drill from the other: And when they are about eight or nine Inches high they should be well earth'd up, and stuck with Sticks about three Feet high, and to prevent their being damaged by Winds, 'tis best to place a double Row of Sticks, that the Pease may be between them, and as they run up be secured from the Winds, and much better exposed to the Sun, than when lying on the Ground.

To have Pease come in very early, observe to stop them as soon as they appear in Bell, that is, pinch off their leading Shoots, and 'twill cause them to ripen a full Fortnight before the others which are not so stop't; and indeed 'tis very prudent to leave some untop'd to come in and succeed the first.

About the middle of *January* we sow a third Crop, which may be of *Readings*, if you have not *Hotspurs*, in the same manner as before directed; as also again in the middle of *February* and *March*, for the pleasure of Gardening consists in having great plenty throughout the whole Summer, and not for a very small Season, and then no more, as is too often seen.

This last sowing of *Hotspur* or *Reading* Pease is very sufficient for those Kinds, and therefore we must about the beginning of *April* think of sowing the other Kinds, *viz.* the Dwarf Pea, the Marrow Pea, the Sugar Pea, &c. which Sorts also ought to be sown in *May* and *June*, and thereby we shall have a constant Supply throughout the Summer.

The manner of sowing these last Kinds of Pease, differs very much from those of the *Hotspurs*, or *Readings*, as will appear by the following.

1. Dwarf Pease are sown in Drills as the *Hotspur* Pease, but with these Differences: Whereas *Hotspur* Pease are sown very thick in the Drills, to allow for Accidents, &c. or even free from them; these must not be sown, or drop'd nearer to one another than four or five Inches, excepting in a very wet Year, when the Slugs are very numerous, when they may be drop'd at about two Inches apart, to allow for such a loss: And instead of drawing the Drills at two Feet, or two Feet and half apart, they must not be more than eighteen or twenty Inches. And when Dwarf Pease are sow'd for Seed, the distance between the Drills need not exceed one Foot; because there will be no occasion to go between them, except to hough the Weeds, &c. till they are ripe and fit to pull up.

N. B. It is observable, that altho' a Person is as careful and nice as possible a Man can be, in the saving of Pease for Seed; yet there are always, amongst all Sorts of Pease, some few that will degenerate the very first Year of sowing, and will not either be in bloom, or ripe so soon as the others, by a full Fortnight, and oftentimes three Weeks.

These dégenerate Pease are by the Gardiners called *Rogue*., and are discovered by the Over-rankness of their *Haulm*, as well as by their late and untimely Produce.

The Reason why I mention these degenerate Pease is, that you may take a careful Survey of them amongst all your Pease intended for Seed: For if they are not carefully pricked out from the others, but are suffer'd to mix therewith, your Kind will immediately be worth nothing, and very much deceive every one that sows the same.

The other Kinds of Pease, as the *Marrow Pea*, the *sugar'd Poland*, the *Roncival*, &c. are also subject to the like Degeneracy., which with a very little Care may be easily prevented.

The large Kinds of Pease are sown in Drills, as I directed for the large Kind of white *French Beans*, viz. in double Drills about sixteen or eighteen Inches apart, with Alleys between them of two Feet and half, or three Feet wide, and are stuck with high Branches of Trees, &c. for them to run up; which they in general delight to do, and will bear plentifully, which they never will do if not staked up, or if planted nearer, and have not sufficient Air.

The large Kinds of Pease must not be sown or drop'd nearer to each other in the Drills than three Inches, for they break out into many Shoots when above Ground, and become very thick and fruitful.

S E C T. XX.

Of the remaining Sallets for the Months of April, May and June.

THE remaining Sallet Herbs for these Months, are Cabbages, Parsley, Spinage, Succory, the *French and Greenland* Sorrels, Sampier, red Sage, Turnip and Mint, whose Culture being delivered at large in the first Part, need not be repeated here again; and having thus gone through the two first parts of the Year, I shall now present you with Tables of the Temperatures, and medicinal Virtues of such Sallets as have been in Season for the last Quarter.

A Ta

A Table of the Degrees of Heat, Cold, &c. contain'd in the several Sallet Herbs, for the Months of APRIL, MAY, and JUNE.

Sallet Herbs hot and dry.

B A L M second Degree.	Radish hot in the third Degree,
Garden Cresses, D ^o .	and dry in the second.
Dill, D ^o .	Horfe Radish 3 ^d Degree.
White Mustard 4 th Degree.	Red Sage, almost in the third
Onions almost in the 4 th Degree.	Degree.

Sallet Herbs temperately hot and dry.

Chervil, and Seedlings of Oranges and Limons.

Sallet Herb hot and moist.

Young Carrots sown at Michaelmas last.

Sallet generously hot.

Sellery.

Sallet Herb cold and moist.

White Beet.	Spinage,
Cucumber.	and
Lettice.	Purslane.

Sallet Herb cold and dry.

Succory.

Sallet Herbs moderately cold and acid.

The several Kinds of Sorrel.

Sallet Herbs dry and binding.

The several Kinds of Cabbages, Coleworts and Colly-flowers.

Sallet

Sallet Herb nourishing.

Asparagus.

Sallet Herbs windy.

Artichokes and Garden Beans.

T A B L E II.

*Of the several Effects, which the Sallets for APRIL,
MAY and JUNE have on human Bodies.*

1. *To excite Appetite.*

CUCUMBERS, Mustard, Radish, Onions and Sorrel.

2. *To help Digestion.*

Asparagus, Mustard and Horse Radish.

3. *Good for the Head and Brain.*

Red Sage.

4. *To attenuate gross Humours.*

Garlick, Onions, and Sorrel.

5. *Loosening.*

White Beet, Cabbage, Corn Sallet, and Spinage.

6. *Refreshing.*

Corn Sallet, Cresses and Chervil.

7. *To comfort the Heart.*

Balm, Borage, Bugloss and Burnet.

8. *To open Obstructions.*

Garlick, Onions and Sorrel.

9. *To*

9. *To help a cold and weak Stomach.*

Balm, Chervil, Garlick, Mustard, Mint, Orange and Limon Seedlings, Onions, and Horse Radish.

10. *To help a hot Stomach.*

All Sorts of Lettice, Purslane, and Sorrel.

11. *To provoke Urine.*

Asparagus, Chervil, Garlick, Onions, Purslane and Radish.

12. *To stop the spitting of Blood or bloody Flux.*

Purslane.

T A B L E III.

1. *The raw Sallets for APRIL, MAY, and JUNE are,*

B ORAGE Flowers.	Orange and Limon Seedlings.
Chervil.	Young Onions.
Cowslip Flowers.	Purslane.
Corn Sallet.	Radish.
Garden Cresses.	Horse Radish.
Cucumber.	Red Sage.
Lettices.	Sorrel.
White Mustard.	Spinage.
Mint.	Turnip in Seed Leaves.
Nasturtium Indicum Flowers.	

2. *The boiled Sallets for APRIL, MAY, and JUNE are,*

Asparagus.	Colly-flowers.
Artichokes.	Carrot.
Garden Beans.	Lettice.
White Beet.	Kidney or French Beans.
Early Cabbages.	Pease.
Coleworts.	Spinage.

3. *The*

3. *The pickled Sallets for APRIL, MAY, and JUNE are,*

Broom Buds.	Red Cabbage.
Cucumbers.	Small Onions.
Radish Pods.	French Beans.
Walnuts.	Nasturtium Seeds.
Mushrooms.	Berberries, &c.

As in the last Quarter.

C H A P. III.

*Of the several Sallet Herbs for the Months
of July, August, and September.*

S E C T. I.

THE Sallet Herbs for this Quarter are Balm, Garden Beans, Beet, Borage, Burnet, Bugloss, Chervil, Garden Cresses, Corn Sallet, Cucumbers, Collyflowers, Cabbages, French Beans, the several Kinds of Lettice, Nasturtium Flowers, Onions, Purslane, Pease, Sorrel, Tarragon and Melons: And as their Culture is already laid down in the preceding Parts, I refer you thereunto.

T

T A B L E

TABLE I.

*Of the Degrees of Heat and Cold, &c. contain'd in
the several Sallet Herbs for the Months of JULY,
AUGUST, and SEPTEMBER.*

Sallet Herbs hot and dry.

BALM second Degree. Onions.
Garden Cresses, D^o. Horfe Radish.
Tarragon.

Sallet Herb temperately hot and dry.

Chervil.

Sallet Herb hot and moist.

Carrots.

Sallet Herbs cold and moist.

White Beet.
Cucumber.
Lettice.

Melons.
Spinage.
Purslane.

Sallet Herbs moderately cold and acid.

The several Sorts of Sorrel.

Sallet Herbs dry and binding.

The several Sorts of Cabbages and Collyflowers.

Sallet Herbs windy.

Artichokes and Windsor Beans.

TABLE

T A B L E II.

Of the several Effects, which the Sallets for JULY, AUGUST, and SEPTEMBER have on human Bodies.

1. *To create an Appetite.*

CUCUMBERS, Mustard, Onions, and Sorrel.

2. *To help Digestion.*

Mustard, and Horse Radish.

3. *To make thin gross Humours.*

Garlick, Onions, and Sorrel.

4. *Loosening.*

White Beet, Cabbage, Corn Sallet, and Spinage.

5. *Refreshing.*

Corn Sallet, Cresses, and Chervil.

6. *To comfort the Heart.*

Balm, Borage, Bugloss and Burnet.

7. *To open Obstructions.*

Garlick, Onions, and Sorrel.

8. *To help a cold and weak Stomach.*

Balm.

Chervil.

Garlick.

Mustard.

Mint.

Onions,

and

Horse Radish.

9. *To help a hot Stomach.*

All the Sorts of Lettice, Purslane, and Sorrel.

10. *To provoke Urine.*

Chervil, Garlick, Onions, and Purslane.

11. *To stop the spitting of Blood, or Bloody-flux.*

Purflane.

T A B L E III.

1. *The raw Sallets for JULY, AUGUST, and SEPTEMBER.*

BORAGE Flowers.

Chervil.
Corn Sallet.
Garden Cresses.
Cucumber.
Lettice.
Mustard.

Melons.

Nasturtium Flowers.
Young Onions.
Purflane.
Horse Radish.
Sorrel.
Tarragon.

2. *The boiled Sallets for JULY, AUGUST, and SEPTEMBER are,*

Artichokes.
Garden Beans.
White Beet.
Savoys.
Collyflowers.

Carrot.

Lettice.
Kidney, or French Beans.
Pease.
Spinage.

3. *The pickled Sallets for JULY, AUGUST, and SEPTEMBER are as before, viz.*

Broom Buds.
Cucumbers.
Radish Pods.
Walnuts.
Mushrooms.

Melons.

Small Onion.
French Beans.
Nasturtium Seeds.
Berberries.

N. B. That the above Pickles are seldom eaten in these two last Quarters, except by some particular People, who delight more therein than raw Salleting, for whose Use they are herein inserted.

CHAP. IV.

Of the several Sallets, Roots, &c. for the Months of October, November, and December.

SECT. I.

THE several Sallet Herbs for this Quarter are Beets, Cabbages, Savoys, Carrots, Cresses, Chervil, Clary, Corn Sallet, Endive, Garlick, Horse Radish, Lettice, Mustard, Onions, Parsnips, Potatoes, Parsley, Radish, Sellery, Spinage, red Sage, Sorrel, and Turnips both in Seed Leaves and Roots. And as the Culture of all these several Herbs are already declared, I shall proceed to the Tables of their Temperatures, &c.

TABLE I.

Of the Degrees of Heat, Cold, &c. contained in the several Sallet Herbs for the Months of OCTOBER, NOVEMBER, and DECEMBER.

Sallet Herbs hot and dry.

CRESSSES 2 ^d Degree.	Onions almost in the 4 th Degree.
Clory 3 ^d Degree.	Radish 3 ^d Degree.
Mustard 4 th Degree.	Red Sage, almost in the 3 ^d Degree.
Horse Radish 3 ^d Degree.	
Garlick 4 th Degree.	

Sallet Herbs temperately hot and dry.

Chervil, and Parsnips.

Sallet

Sallet Herbs temperately hot and moist.

Carrots, and Skirrets.

Sallet Herb generously hot.

Sellery.

Sallet Herbs cold and moist.

White Beet, Lettice, and Spinage.

Sallet Herbs cold and dry.

Red Beet, Endive and Succory.

Sallet Herbs dry and binding.

The several Sorts of Cabbages and Savoys.

Sallet Herbs windy and moist.

The several Sorts of Turnips.

Sallets nourishing.

Parsnips, Potatoes, and Rampions.

TABLE II.

Of the several Effects which the Sallets for OCTOBER, NOVEMBER, and DECEMBER, have on human Bodies.

1. *To create an Appetite.*

MUSTARD and Onions.

2. *To help Digestion.*

Mustard, and Horse Radish.

3. *To make thin gross Humours.*

Garlick, and Onions.

4. *Loosening.*

4. Loosening.

White Beet, Cabbage, Corn Sallet, and Spinage.

5. To cool the Liver.

Endive, and Sallery.

6. Refreshing.

Corn Sallet, Cresses, and Chervil.

7. To open Obstructions.

Garlick, and Onions.

8. To help a cold and weak Stomach.

Chervil.

Clary.

Garlick.

Mustard.

Mint.

Onions.

Parship, and

Horfe Radish.

9. To help a hot Stomach.

All Sorts of Winter Lettice.

10. To provoke Urine.

Chervil.

Endive.

Garlick.

Onions.

Parship.

Radish.

and

Turnips.

11. Stone and Gravel.

Wild Carrot Seed, Mint, Parship, and Radish.

12. Wind in the Stomach.

Garlick.

13. Worms.

Garlick.

T A B L E

TABLE III.

1. *The raw Sallets for the Months of OCTOBER, NOVEMBER, and DECEMBER.***CRESSSES.**

Corn Sallet.
Horse Radish.
Mustard.
Parsley.
Sellery.
Red Sage.

Chervil.

Endive.
Lettice.
Onions.
Radish.
Spinage.
Turnip.

2. *The boiled Sallets for the Months of OCTOBER, NOVEMBER, and DECEMBER.*

Beets.
Savoys.
Onions.
Potatoes.
Spinage.

Cabbages.
Carrots.
Parsnip.
Parsley.
Turnips.

3. *The pickled Sallets are the same as in the preceding Months.*

C H A P. V.

Of the Names, Descriptions, Temperatures, Virtues and Cultivations of such Distilling, and other physical Herbs, as are absolutely necessary for the Service of all Gentlemen, (and other) Families in general.

S E C T. I.

Of the several Distilling Herbs, necessary for the Use of every Family.

TH E several Physick Herbs necessary to be cultivated for the Use and Service of a Family are, Angelica, Anniseed, Balm or Baum, Camomile, Carduus, Clary, Comfrey, Clove-gilli-flowers, Dragons, Dill, Dwarf Elder, Elicampagne, Fennel, Featherfew, Hyssop, Lavender, white Lilies, Lavender Cotton, Lavender Spike, Liquorish, Mint, Marjoram, Marsh-mallows, Marygolds, Penny-royal, Parsley, Peonie, white Poppy, Rosemary, Rhue, red and damask Roses, red Sage, Tea Sage, Wormwood Sage, Savory, Solomon Seal, Saffron, Thyme, Tanfie, Tobacco, Scurvy-grass, Violets and Wormwood. And as I have already explain'd the Culture of Balm, Dill, Fennel, Mint, Penny-royal, Parsley, red Sage, Tanfie, and Scurvy-grass in the preceding Parts, I shall now proceed to the Description, Culture, &c. of the others.

S E C T. II.

Of *Angelica*.

1. Its Names.

GARDEN ANGELICA, is called in *Latin Angelica Sativa*, in *High Dutch*, *Angelick*, *Brustwurtz*, or *Desheilighen Geyst Wurtzel*, that is *Spiritus Sancti Radix*, or the Root of the Holy Ghost, as witnessed by *Leonhartus Fuchsius*, in *Low Dutch*, 'tis called *Angelijka*, in *French Angelic*, and in *English Angelica*.

2. Its Description.

The Leaves of *Angelica* are very large and broad divided into many Parts or lesser Leaves, which are indented like unto the Leaves of *Spondilium* or Cow Parsnip, but grow much nearer to the Eye, are much thicker, of a deeper green, and of a strong Savour. The Stalk rises up from the head of the Root, and very often rises six or seven Feet in height, and especially when 'tis planted in good Land. 'Tis very large and hollow, divided into many Joints, from which grow out other small Branches, at whose ends grow Tufts of whitish Flowers, very like unto those of Fennel, which are afterwards succeeded by Seed.

It flowereth in *July* and *August*, and the Seed is ripe in *September*.

The Root is generally very large, producing an oily Liquor when broken, and the whole Plant is of a very pleasant Smell.

And besides the aforesaid Kind of *Angelica*, there is another Kind, which in Form is exactly the same, but the Leaves next the Ground are of a purple red Colour, the Roots of a more aromack Savour, and the whole Plant of a lesser Growth.

The wild *Angelica*, called *Angelica Sylvestris*, delights in cold and moist Meadows, and is very like unto the Garden *Angelica*, excepting its Leaves, which are not so much indented,
I and

and are of a blackish green and narrower, the Stalks are also much slenderer and shorter, the Flower much whiter, the Root much less, and of not so strong a Savour.

3. *The Temperature.*

The Garden *Angelica* is hot and dry in the third Degree.

4. *The Medicinal Virtues.*

The Roots of Garden *Angelica* is a singular Remedy against Poison, the Plague, and other Infections taken by bad Air: For if the Heart is infected by Pestilence, 'tis said by many famous Men, that the Root being chewed in the Mouth, will instantly drive it out again by Urine and Sweat.

'Tis a very great Opener of the Liver and Spleen, and extenuateth gross and tough Phlegm.

The Leaves put into Wine and drank make the Heart merry. 'Tis a singular Medicine against Surfeits, and bad Stomachs, and cures the Bittings of mad Dogs, and all other venomous Beasts.

5. *Its Cultivation.*

The Seed is ripe generally in *September*, and may then be sown, or in the Spring following, and afterwards transplanted out at two Feet and half, or three Feet apart.

When the Plants are suffer'd to run up to Seed, their Roots die soon after their Seed is ripe, but if you prevent its growing to Seed, by cutting off the Stem as it appears, 'twill endure a great many Years.

N. B. That the tender Stalks are of a very pleasant Taste, when candied.

S E C T. III.

Of Anniseed.

1. *Its Names.*

ANISE or ANNISEED, is called in Greek *άνισον*, in Latin *Anisum*, in High Dutch *Anisz*, in Low Dutch *Anissaet*, in Italian *Aniso*, in Spanish *Matabalua*, in French *Anis*, and in English *Anniseed*.

U 2

2. *Its*

2. *Its Description.*

The Stalk is round and hollow, divided into many Branches which are set with indented Leaves, and those that grow towards the top of the Branches are very like those of young Parsley, but the others nearer the Ground are much larger. On the ends of the Stalks, about the end of *June* or beginning of *July*, the Blossoms appear in spokie Heads or Tufts, like unto those of Parsnip, Parsley, &c. which are succeeded by Seed that ripens in *August*, which is of a very delightful Smell.

3. *The Temperature.*

According to *Galen*, the Seed of *Anise* is hot and dry in the third Degree, but by others 'tis said to be only hot in the second Degree, and not very dry; and indeed 'tis my Opinion, that it is so, for was it dry in the third Degree, it could not breed Milk in Women, as it is known to do. However, altho' *Galen* and others of his Time could not agree about the Temperature of this Herb; yet others of latter Days have found it by Experience to be dry in the first Degree, and hot in the second.

4. *The Medicinal Virtues.*

The Seed is very good for those who are troubled with Wind, Belchings, Upbraidings of the Stomach, Gripes, provokes Urine gently, and breeds plenty of Milk in the Breasts of Women who suckle young Children.

5. *Its Cultivation.*

This Herb is a Native of *Candie*, *Syria*, *Egypt*, and other of the *Eastern* Countries; but if 'tis sown with us in a rich warm Soil in *May*, 'twill thrive very well, and ripen its Seed in *August* as aforesaid.

SECT. IV.

Of Camomile.

1. The Names.

CAMOMILE, is called *Chamæmelum*, and by some *Leucanthemis*, and also *Leucanthemon*, especially the double Flower Camomile; and altho' there are four Kinds of this Herb, yet they are all call'd Camomile, as the single Camomile, the sweet naked Camomile, the double flower'd Camomile, and the *Romish* Camomile.

2. Their Description.

(1.) The single Camomile growing in great plenty on Commons, Meadows, &c. is well known to every one.

(2.) The sweet naked Camomile has no difference from the preceding, excepting in the Flowers, which are quite naked of those small white Leaves, which are placed round the lower part of their Flowers.

(3.) The double Camomile is of the same make as the two others, its difference consisting in the Flowers only, which are as close set with small white Leaves, as the last was wanting, being very like unto a double white Daisy.

(4.) The *Roman*, or *Romish* Camomile has many slender Stalks, but much stronger than any of the others, nor doth it creep upon the Ground, as the others do.

The Leaves are of a pale Colour, and their Flowers very like unto the single Kind.

N. B. The double Camomile is the best Sort for our Use, and therefore the others may not be regarded.

3. Its Temperature.

Camomile, according to *Galen*, is hot and dry in the first Degree, and is of thin Parts.

4. Its Medicinal Virtues.

Camomile is very good against the Cholick and Stone, provokes

provokes Urine, and is most singular in Glisters, against the aforesaid Diseases.

The Oil of Camomile is exceeding good against all manner of Aches, Pains, Bruises, Cold, Swellings, and shrinking of the Sinews.

The Decoction of Camomile made in Wine and drank is very good for a cold Stomach, lower Belchings and Wind.

Galen reporteth, that the *Egyptians* used it against Agues, wherein it had such Success, that for its great Virtue, they did therefore consecrate it.

The Herb boiled in Posset-Drink, and drank, easeth the Pains of the Chest, expells tough and clammy Phlegm.

The Herb used in Baths causes Sweat, opens the Pores, easeth the Gripings and Gnawings of the Belly, softens hard Swellings, and wastes raw and undigested Humours.

s. Its Cultivation.

Camomile is encreased by parting the Roots, and is best when new planted every Year.

It delights in good mellow holding Land, and may be planted any time in *March*, in Beds or Borders, each Root a Foot apart.

S E C T. V.

Of *Carduus Benedictus*.

1. Its Names.

CARDUUS BENEDICTUS or the *Holy Thistle*, is called by many Apothecaries *Cardo Benedictus*, and by some 'tis called *Attractylis* wild bastard Saffron, and often *Attractylis hirsutior*, hairy wild bastard Saffron.

Valerius Cordus names it *Cnecus supinus*, and in *High Dutch* 'tis called *Beseegnete Distell*, *Kardo Benedict*, which last Name is known by the *Low Dutch*, in *Spanish* 'tis called *Cardo Sancto*, in *French* *Charaon Benoist*, or *Beneist*, and in *English* *Blessed Thistle*, but more commonly by the *Latin* Name *Cardus Benedictus*.

2. Its

2. *Its Description.*

The Stalks of the *Blessed Thistle* are round, rough and pliable, divided into many Branches, most of which rest upon the Ground. The Leaves are jagged, and full of tender Prickles on their Edges, and on the Tops of their Stalks they produce Heads of Blossoms set with Prickles, and environ'd with sharp prickly Leaves. The Flowers are yellow, which are succeeded by long Seed, set with a sort of a hairy down on their Tops. The Root is white, and the whole Plant above Ground, viz. its Stalks, Leaves, and Heads of Blossom or Seed, are cover'd with a soft and thin downy Substance.

3. *Its Temperature.*

Hot and dry in the second Degree, and withal cleansing and opening.

4. *Its Medicinal Virtues.*

Carduus Benedictus, being boiled in Wine and drank hot, healeth the griping Pains of the Belly, kills and expells Worms, causes Sweat, provokes Urine, expels Gravel, cleanseth the Stomach, and is very good against a quartan Fever.

Hierome Bock witnesseth, that the Juice of *Carduus* taken in Wine or any other way, is singular good against all Poison, and according to *Joachim Camerarius* of *Noremberg*, it helps the Inflammation of the Liver.

The Powder of the Leaves given in the quantity of half a Dram, is very good against Pestilence, provided that 'tis taken within twenty four Hours from the time of the Infection and the Party sweat upon the same.

N. B. That the Wine wherein the Leaves have been infused has the same Effect.

5. *Its Cultivation.*

The Seed of *Carduus Benedictus* is ripe in *September*, and should at that time be sown: It delights in good Land, and when large enough to transplant out, should be planted in Beds at one Foot distant each Plant from the other.

N. B. That the time of its greatest Perfection for physical Uses is *July* and *August*, when 'tis in its full Blossom.

S E C T. VI.

Of Comfrey.

1. Its Names.

COMFREY otherwise called *Bugle*, is reckon'd amongst the Confoundes or wound Herbs, and is called by some *Consolida media*, *Bugula*, and *Buglum*, in *High Dutch* 'tis called *Guntzel*, in *Low Dutch* *Senegroen*, and in *English* *Brown Bugle*, *Sicklewort*, and *middle Comfrey*.

2. Its Description.

The Nature of this Herb is to spread its self and creep along the Ground like *Moneywort*. The Leaves are long and of a brownish Colour. The Flowers grow in Parcels, encompassing the Stalk towards the Top with small Intervals between each Parcel, and are of a fair blew Colour, and sometimes very white; but I take the *Bugle* which produces white Flowers to be that called the white *Bugle*, and in *Latin* *Bugula flore albo*.

3. The Temperature.

This Herb is of a mean Temperature, being neither hot nor dry in any Degree whatsoever.

4. The Medicinal Virtues.

This Herb is very good for inward Burstings, Member torn, rent or bruised, and therefore 'tis put into Potions that serve for Nodes, in which 'tis of such wonderful Virtue, as to dissolve and waste away congealed and clotted Blood.

Ruellius writes, that 'tis a common saying in *France*, that he who hath *Bugle* and *Sanicle*, needs no *Physician* or *Surgeon*: For its Virtues are so great, that it does not only cure Wounds being inwardly taken, but outwardly also, being applied thereunto.

'Tis also very good for the Infirmities of the Liver, it takes away the Obstructions, and gives great Strength thereunto.

The Decoction of *Bugle* being drank, dissolveth clotted or congeal'd Blood within the Body, and heals all manner of Wounds either inward or outward.

The

The Decoction doth also open the stoppings of the Liver and Gall, is very good against the Jaundice, Fevers of long continuance, and cureth the rotten Ulcers of the Mouth and Gums.

In short, this Herb, called vulgarly *Comfrey*, and that called *Self-Heale*, are two of as good wound Herbs as any the Earth produces, and for which Reason I recommend their Cultivations in the Physick Garden, to be ready at Hand upon every Occasion that may happen.

5. The Cultivation.

Bugla, or *Comfrey* delights in moist and shady Lands, and is propagated by Seed sown in *March*.

S E C T. VII.

Of Clovegillflower.

1. Its Names.

THE Clovegillflower is called by the modern *Herbarists* *Caryophyllus flos*, of the smell of Cloves, wherewith 'tis possessed: In *Latin*, of most *Ocellus Damascenus*, *Ocelliu Barbaricus*, and *Barbarica*, in *Italian* *Garofoli*, in *Spanish* *Clavel*, in *Low Dutch* *Ginoffelbloemen*, in *French* *Ocilletz*, and in *English* *Carnation* and *Clovegillflower*, and of some 'tis called *Vetonica*, and *herba Tunica*.

2. The Description.

The Stalks and Leaves of the Clovegillflower, have little or no Difference from those of the *Carnation*, which are well known to every one, and the Flowers are not unlike those of the close blowing Kinds, excepting in their Colour, which is all red, without any Streaks or Variegations of any other Colour whatsoever, and are as double as any of the *Carnation* Tribe, but are not near so large as some of them are.

There is another Kind of Clovegillflower, which no way differs from the other in its Leaves and Stalks, that produces a single Flower, like unto a very large single *Pink*, which a-

mongst Gardiners is called a *Stamel*, and is of no Use in Phy-
sick; therefore not to be entertain'd in a Garden.

3. The Temperature.

The Gilliflower is temperately hot and dry.

4. The Medicinal Virtues.

The Conserve made of the Flowers and Sugar is an ex-
ceeding good Cordial, and being taken now and then comforts
the Heart beyond Expression, as also doth the Syrup being
drank in Brandy, and is very opening.

The Conserve is very good against pestifential Fevers, ex-
pelling the Poison and Fury thereof, and greatly comforts the
Stomach.

5. Its Cultivation.

The Clovegilliflower is propagated by Layers, as the Carna-
tions (well known to every Gardiner and Florist) in June, or
the first Fortnight in July; they love a light rich Soil, and are
very great Bearers, and I believe are therefore called in *Latin*
Caryophyllus Multiplex.

A. B. If the Flowers are gather'd when wet, and lay'd close
together, they will immediately heat and turn black.

SECTION VII.

Of Dragons.

1. Their Names.

THE Herb called *Dragon*, is called in *Greek* *δρακοντιον*,
in *Latin* *Dracunculus*, or *Dracontium*, and as there are
two Kinds cultivated in our Gardens, viz. the major, and the
minor, they are therefore called *Dracontium majus*, and *Dra-*
contium minus, and very often *Serpentaria major*, and of some
Bisaria, and *Colubrina*.

Cordus calls it *Dracunculus*, *Polyphyllus*, and *Luph*, *Crispum*,
and in *Italian* is called *Dragontea*, in *High Dutch* *Schlan-*
genkraut,

genkraut, in *Low Dutch Speerwortele*, in *Spanish Taragontia*, in *French Serpenteaire*, and in *English Dragon*, or *Dragon-wort*.

Apuleius calleth *Dragon Dracontia*, and to that adds many strange Names, but whether they agree with the greater or the lesser, or both, he has not demonstrated: As *Pythionon*, *Anchomanes*, *Saichromaton*, *Tberion*, *Schaenos*, *Dorcadion*, *Typhonion*, *Tberiphonon*, and *Eminion*. *Athenæus* sheweth that *Dragon* is also called *Aronia*, because 'tis like unto *Aron*.

2. The Description.

The great *Dragon* riseth up with a straight Stalk about two Feet and half, and sometimes three Feet high, being generally very thick, smooth, and spotted with Spots of divers Colours, very like unto the Belly of a Toad, or back of a Snake, the Leaves are very large, consisting of seven or eight Parts, or rather so many lesser Leaves, which in Form are very like those of the Dock, being very smooth and slippery. And out of the top of the Stalk grows a long large Husk very like that of the *Cuckow Pintle*, but much larger, of a greenish Colour without, and Crimson within.

The *Pestal* which grows in the midst of the Husk is of a blackish Colour, very long, thick and blunt pointed, and when the Seed is grown pretty large, the Skin or Film that covers them being stretch'd and broken thereby, they appear like unto a Bunch of Grapes, which at first appears of a green, and afterwards of a red Colour and full of Juice, wherein are contain'd the Seed, which are somewhat hard.

The Root is bulbous, cover'd with a white thin peel, with many small fibrous Roots appendent thereto.

The lesser *Dragon* is like unto *Aron* or *Wake-Robin*, in Leaf, Husk, *Pestal* and Berry, but instead of their Leaves being sprinkled with black Spots, they are sprinkled with white Spots, and the Berries are not of a deep red as the other, but of a Colour inclining to Saffron. The *Bulb* is very like that of *Cuckow Pintle*, full of small stringy Roots and young Off-sets whereby 'tis propagated.

3. The Temperature.

Dragon is hot, and of thin Parts.

4. *The medicinal Virtues.*

The Root of *Dragon* cleanses the Entrails, and attenuates thick and tough Humours.

The Leaves are good for Ulcers and green Wounds, being apply'd green, for when they are dry, they have very little Virtue to heal, and are of a more sharp or biting Quality than is necessary for green Wounds.

Pliny affirms, that Serpents will not come near any one that hath *Dragons* about him. The distill'd Water of *Dragons* is very good against the Pestilence, or any pestilential Fever or Poison, being drank warm with the best Treacle or Mithridate.

S E C T. IX.

Of Dwarf Elder.

1. *Its Names.*

DWARF ELDER is commonly called *Danewort*, and in Greek *χαμαιάκην*, that is, *Humilis Sambucus*, or low Elder, in Latin *Ebulus* and *Ebulum*, in High Dutch *Attich*, in Low Dutch *Hadich*, in Italian *Ebulo*, in Spanish *Tezgos*, in French *Hiebles*, and in English *Walkwort*, *Danewort* and *Dwarf Elder*.

2. *The Description.*

Walkwort or *Dwarf Elder* is very like the common Elder in its Leaves, spokie Tufts of Bloom, and Fruit; but hath not woody Stalks, as the common *Elder* hath.

It produces green Stalks which die in the Winter, and are jointed as the young Shoots of *Elder*. The Leaves grow in Couples, and consist of many small Parts or lesser indented Leaves, which are placed upon a thick rib'd Stalk, and their Flowers are produced at the top of the Stalks in white Tufts, which are succeeded by *Blackberries*, very like unto those of the common black *Elder*, wherein are contain'd small long Seeds.

The Root is very tough, of a reasonable size and length, and of greater Virtue than the Roots of the black *Elder*.

3. Its Temperature.

Hot and dry in the third Degree.

4. Its Medicinal Virtues.

The Roots of *Dwarf Elder* boil'd in Wine and drank is very good against the Dropsie, by purging away the watery Humours.

The Leaves waste and consume hard Swellings, being applyed as a Pultise, or in a Fomentation; one Dram of the Seed being drank in Ale, &c. is the most excellent Purger of watery Humours of any in the World, and therefore very good against the Dropsie.

5. Its Cultivation.

Dwarf Elder or *Danewort* is increased by parting the Roots in the Spring, and delights in mellow Land.

S E C T. X.

Of *Elicampane*.

1. Its Names.

ELICAMPANE is called by the *Grecians* ἐλέγιον, in *Latin* *Inula*, and *Enula*, and by some *Enula campana*, in *Italian* *Enoa*, and *Enola*, in *High Dutch* *Alantwurtz*, in *Low Dutch* *Alandt-wortele*, in *French* *Enula campana*, and in *English* *Elicampane*, *Scabwort*, and *Horse-heal*: And 'tis reported by some, that this Herb took its Name *Helenium*, of *Helena*, Wife to *Menelaus*, who had her Hands full of it, when *Paris* stole her away into *Phrygia*.

2. The Description.

The Leaves of *Elicampane* are very like those of the large *Comfrey*, but soft, and covered with a hairy Down, of a whitish

tish green Colour on their upper Parts, and very white underneath, being slightly indented about the Edges.

The Stalk very often rises four or five Feet high, and something more than a Finger's thickness, cover'd with a sort of downy Substance, very like the upper part of the Leaves, and divided towards the upper part into many Branches, upon whose extreme Parts are produced large round yellow Flowers, which are succeeded by long and slender Seed.

The Root is very large, of a darkish Colour without, and white within, whose Substance is sweet of Smell, but very bitter in Taste.

3. *Its Temperature.*

The Root of *Elicampane* is hot and dry in the third Degree.

4. *Its Medicinal Virtues.*

'Tis good for shortness of Breath, and an old standing Cough, the Root preserved is very good for the Stomach, and being eaten after Supper helps Digestion, and keeps the Belly soluble. The Root taken with Honey or Sugar, made into an Electuary, cleanses the Breast, ripens tough Phlegm, and causes it to be easy spit forth.

5. *Its Cultivation.*

This Herb is in blossom in *June* and *July*, after which their Seed ripens, which should be sown as soon as gather'd; it delights in deep mellow fresh Land, and the Roots are in greatest Perfection in *April* or the Autumn.

S E C T. XI.

Of Feverfew.

1. *Its Names.*

FEVERFEW is called by *Dioscorides* in Greek *παρθένιον*, of *Galen* and *Paulus*, *Απάραος*; in *Latin* *Parthenium*, *Matricaria*, and *Febrifuga*, of *Fuchsius* *Artemisia Tenuifolia*,

in *Italian Amarella*, in *Dutch Moederkruid*, in *French Espar-goute*, in *English Fedderfew* and *Feverfew*.

2. *Its Description.*

Feverfew produces many small round Stalks divided into many Branches. The Leaves are tender, and as it were torn and jagged, and something indented on their Edges.

The Flowers are produced at the tops of their Branches, whose yellow Balls are environ'd with small white Leaves.

The Root is of a hard and tough Substance, and of a strong Smell and bitter Taste.

There is another Kind of *Feverfew*, called in *Latin Matricaria duplici flore*, or *Parthenium*, whose Smell, Stalk and Leaves are the same as the preceding; but the Flowers are double, and is therefore called in *English* double *Feverfew*.

3. *Their Temperature.*

Feverfew is dry in the second Degree, and hot in the third.

4. *The Medicinal Virtues.*

This Herb is of a cleansing Nature, and purges, opens, and fully performs all that bitter Herbs can do.

S E C T. XII.

Of Hyssop.

1. *Its Names.*

HYSSOP is called in *Latin Hyssopus*, as also in *Italian*, *Spanish*, *French*, and *German*.

2. *Its Description.*

Hyssop being a very common Herb in the Garden, needs no Description, and altho' there be four Kinds of this Herb, yet their difference is so very little, as not worth the trouble of describing the same: but however it may not be amiss to declare their several Names.

The

New Principles of Gardening.

The first Kind is called in *Latin Hyssopus Arabum*, *Hyssop* with blue Flowers; the second *Hyssopus Arabum flore rubro*, *Hyssop* with reddish Flowers; the third *Hyssopus albis floribus*, and lastly, *Hyssopus tenuifolia*, thin leaved *Hyssop*.

3. *The Temperature and Medicinal Virtues.*

A Decoction of *Hyssop* made with Figs, and the Mouth and Throat gargled therewith, ripens and breaks the Tumors and Imposthumes of the Mouth and Throat, and heals the Parts, so as to swallow with ease.

A Decoction of *Hyssop* made with Figs, Water, Honey, and Rhue, being drank helps the Inflammation of the Lungs, an old Cough, shortness of Breath, and the Obstructions of the Breast.

The Syrup or Juice of *Hyssop*, taken with the Syrup of Vinegar, purgeth by Stool tough and clammy Phlegm, and expels Worms being eaten with Figs.

The distill'd Water is also very good for the aforesaid Diseases, but not with that Speed and Strength.

4. *Its Cultivation.*

The blew flower'd *Hyssop*, being the best for our Purpose, may be raised from Seed sown in *March* or *April*, or propagated from Slips, planted any time in the Spring, and delights in a fresh mellow Soil.

S E C T. XIII.

Of Lavender Spike, sweet or Clothes Lavender, and Lavender Cotton.

1. *Their Names.*

1. **L**AVENDER SPIKE is called in *Latin Lavandula* and *Spica*, in *Spanish Spigo* and *Languda*, of which there are two Kinds, the one called in *Latin Lavandula flore caeruleo*, common *Lavender Spike*; and the other *Lavandula flore albo*, white flower'd *Lavender Spike*; the first being the Male, and the second the Female.

2. The

(2.) The other Kind of *Lavender* common in our Gardens, and chiefly used by the common People, who put the Flowers amongst their Linen, is called in *Latin*, *Lavendula hortensis minima*, the smallest *Lavender*.

(3.) *Lavender Cotton* is called in *Latin* *Chamæcyparissus*, and by the *Italians* *Santolina*, and there are many that would have it to be *Abrotanum fæmineum*, or the female Southernwood, but they are absolutely as wrong, as those who take it to be *Scriphium*, Sea Wormwood; for 'tis impossible to refer it to one particularly, because 'tis a Plant participating of both Wormwood and Southernwood.

2. Their Description.

All the *Lavenders* being already well known, need no Description.

3. Their Temperature.

Lavender is hot and dry in the third Degree, and is of a thin Substance, consisting of many airy and spirituous Particles.

The Seed of *Lavender Cotton* is of a bitter Taste, and is hot and dry in the third Degree.

4. Their Medicinal Virtues.

The blew Flowers of *Lavender*, exclusive of their Husks, being mixed with Cinnamon, Nutmegs and Cloves, made into a Powder and drank in the distill'd Water, help the panting and passion of the Heart, Giddiness, and the Members subject to the Palsie: As also doth the Conserve made of the Flowers with Sugar, taking the Quantity of a Bean in a Morning fasting.

The *Lavender Cotton* being given green or dry kills Worms in human Bodies, and if the Seed be taken, it hath the same Effect, but expels them with greater Force.

Pliny says, that *Lavender Cotton* drank in Wine is an excellent Medicine again the Poisons of Serpents and venomous Beasts.

5. Their Cultivation.

All the Kinds of *Lavender* are encreased by Slips of the last Year's Growth, planted in *March* or *April*, and delight in a light fresh Soil.

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S E C T.

S E C T. XIV.

Of Liquorish.

1. The Name.

THERE are two Kinds of *Liquorish*, the one called *Glycyrrhiza Echinata Dioscoridis*, Hedge-hog *Liquorish*, and the other *Glycyrriza vulgaris*, common *Liquorish*.

The first is called in Greek γλυκύριζα, in Latin *Dulcis radix* or sweet *Root*, and in English *Dioscorides's Liquorish*.

And 'tis evident, that the other is *Glycyrrhiza* or *Liquorish*, altho' the Apothecaries call it by the corrupt Name of *Liquiritia*; the *Italians* call it *Regolitia*; and the *Spaniards* *Regaliza* and *Regalitia*; in *High Dutch* *Suszhotz*, *Suszwurtzel*; in *Low Dutch* *Calliffehout*, *Suethout*; in *French* *Rigolisse*, *Raigalisse* and *Reglisse*; and in *English* common *Liquorish*.

Pliny calls it *Scythica herba*, and I suppose, because 'tis a Native of *Scythia*, where it grows in great plenty.

2. Their Description.

The Hedge-hog *Liquorish*, is composed of several Branches of a woody Substance, rising about three or four Feet high, and adorn'd with Leaves of a light green Colour, consisting of many small Leaves set upon a large Rib, and somewhat glutinous in handling. The Flowers are produced out of small Knobs which grow upon short Stems, betwixt the foot of the Leaves and main Stem, clustering together, and making a round Form, which in Colour are very like the blew *English Hyacinth*, and are succeeded by round, rough, and prickly Heads, each consisting of divers rough or scaly compact Husks, wherein are contain'd flat Seeds; the Root is very straight, of a brownish Colour without, yellow within, and of a sweet and pleasant Taste.

The common *Liquorish* in its Stalks and Leaves are very like the former, except in their Colour and Magnitude, which are of a deeper green, and much larger. The Flowers are of a shining blew Colour, but are not produced in such thick Clusters as the former.

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The Cods are of a small Magnitude, and in form like unto the *Tare*. The Roots are of a straight Make, much sweeter in Taste than the other, of a brown or earthy Colour without, and of a beautiful yellow within.

3. *The Temperature.*

The common *Liquorish* is temperately warm and moist.

4. *The Medicinal Virtues.*

The common sort of *Liquorish* is good against Hoarseness, Inflammation of the Lungs, Pleurisie, spitting of Blood and Matter, Consumption, all Infirmities of the Chest, and greatly helps shortness of Breath, and decay'd Lungs.

It takes away Inflammations, mitigates the sharp and salt Humours, concocts raw Humours, and causes easy spitting.

The Decoction being drank very much helps the Kidneys and Bladder that are ulcerated.

It cures the Strangury, and generally all Infirmities that proceed from sharp, salt, and mordicant Humours.

5. *Its Cultivation.*

The common *Liquorish* thrives best when planted in very deep mellow fresh Land, for its Nature is to run down very deep: Before that *Liquorish* is planted, the Land must be very well trench'd, full two Spit and both Crumbs in Depth; and if 'tis trench'd in the Autumn, as directed for *Asparagus* in Sect. II. Part I. having the bottom Spit ridged, to be meliorated by Frosts, &c. during the Winter, 'twill very much add to the success of your Plantation.

Liquorish is propagated from Runners, or small Roots, as those of Horse Radish, each being prun'd to about six or seven Inches in length, and planted about eight or nine Inches apart, in Beds about three Feet wide, with Alleys of two Feet wide between them, for the conveniency of cleaning them, during the time of its Growth, which is generally three, and very oftentimes four Years.

And that you may (after three Years time) have a full Crop coming in every Year; you must therefore plant as much every Spring, as you have taken up the Autumn and Winter before, and thereby you will be plentifully and constantly furnish'd at all Times.

To preserve *Liquorish* from drying after being taken up, you must prepare a Bed of Sand within your Greenhouse, &c. and therein place all the Roots in Beds or Rows, about half an Inch asunder, which will preserve them very moist throughout the whole Winter.

S E C T. XV.

Of Marjorams.

1. Their Names.

MARJORAM is called in *Latin Majorana*, and *Amaracus*, and also *Sampsychum*, in *High Dutch Mayoran*, in *Spanish Mayorana*, *Moradux*, and *Almoradux*, in *French Mariolaine*, and in *English* sweet *Marjoram* or *Summer Marjoram*, and *Pot Marjoram* or *Winter Marjoram*.

2. Their Description.

Summer sweet *Marjoram*, or the great sweet *Marjoram* called in *Latin Majorana major*, is a low and shrubby Plant, of a very light green Colour, and pleasant aromatick Smell. The Stalks are slender, rising about one Foot in Height, divided into many small Branches, about which are placed divers small soft and hoary Leaves. The Flowers are produced near to the upper parts of the Stalks, in chaffy or spiked white Ears. The Root is compact of many small Fibres, and the whole Plant is of a most delightful aromatick Smell.

Pot or Winter *Marjoram*, called in *Latin Majorana major Anglica*, consists of several small Branches, whereon are placed such Leaves as the former, but not so hoary, nor of so pleasant an aromatick Smell.

The Flowers are produc'd at the tops of the Branches in small Tufts, of a whitish Colour, and withal something tending to a purple. The whole Plant is of a long Duration, which the other is not, for that being not able to endure the violence of the Winter, is then perish'd. Whereas the Pot *Marjoram* keeps green all the Winter, and is therefore called *Winter Marjoram*.

And

And beside these two Kinds of *Marjoram*, there are two other Kinds, the one called *Marjoram gentle*, and in *Latin Majorana tenuifolia*, and the other laced *Marjoram*, in *Latin Epimajorana*.

The *Marjoram gentle* consists of several Branches, which are adorn'd with soft and russet colour'd Leaves, of a very pleasant sweet Smell. The Flowers are produced at the very extreme parts of the Stalks, composed of divers small Leaves of a white Colour, something ting'd with a blushing red. The whole Plant is in form very like unto the great sweet *Marjoram*, but something lesser of Growth, and of a much finer Smell.

The laced *Marjoram*, or *Epimajorana*, is also a very fine Kind of *Marjoram*, and differs very little from the preceding. 'Tis a Native of *Candia*, where its Branches are adorn'd with Laces, or small Threads, which are not produced in this Climate.

The other Kinds of wild *Marjorams*, as the bastard *Marjoram* called in *Latin Origanum Heracleoticum*, the white bastard *Marjoram*, *Origanum Album*, the *Origanum Creticum* or wild *Marjoram* of *Candia*, the *Origanum Anglicum* or *English* wild *Marjoram*, the *Tragoriganum* or Goats *Marjoram*, the *Tragoriganum Clusi*, or *Candia* Goats *Marjoram*, being very rarely cultivated in our Gardens, the first two Kinds being fully sufficient; I shall therefore silently pass over their Description, and proceed to the Temperature of the Summer and Winter *Marjorams*.

3. Their Temperatures.

Both the Summer and Winter *Marjorams* are hot and dry in the second Degree, and by some said to be the same in the third Degree.

4. Their Medicinal Virtues.

Sweet *Marjoram* is a very good Remedy against cold Diseases of the Brain and Head, being dry'd and snuff'd up the Nostrils.

Dryed sweet *Marjoram* mix'd with Tobacco and smoaked, is very good for a cold Stomach, and being steep'd in Ale or Wine and drank provokes Urine.

The Leaves boiled, and the Decoction drank, is very good for those that are entering into a Dropsie, provokes Urine and easeth the Pains of the Belly. The

The Leaves dried and mingled with Honey, and taken inwardly, dissolveth congeal'd and clotted Blood.

The Oil of *Marjorams* is very good against the shrinking of Sinews, Cramps, Convulsions, and all kind of Aches, proceeding from a cold Cause.

5. *Their Cultivation.*

The Summer sweet *Marjoram* is raised from Seed sown in *March* upon a very gentle Hot-Bed, and afterwards is transplanted out at about four Inches apart, or in small Flower-pots, as the Gardiner pleases.

The Winter or Pot *Marjoram* is increased by planting the Slips in *March* or *April*, at five or six Inches apart, and delights in a moist fresh Land.

And because, that the Summer sweet *Marjoram* will not endure the Sharpness of our Winters, we must therefore gather and dry a sufficient Quantity for our Use, when 'tis well grown and fit for our Purpose.

S E C T. XVI.

Of Marshmallow.

1. *The Names.*

THE common *Marshmallow* is called in *Greek* *Alθαία*, and *Ιβίσκος*; the *Latins* retain the Names *Althæa*, and *Ibiscus*, and some others *Bismalva* and *Malvaviscus*, as though they should say *Malva Ibiscus*; in *High Dutch* 'tis called *Ibisch*, in *Low Dutch* *Witte Maluwe*, and *Hemst*, in *Italian* and *Spanish* *Maluavisco*, in *French* *Guimauve*, and in *English* *Moorish Mallow*, *white Mallow*, and *Marshmallow*.

The Tree *Mallow*, called in *Latin* *Althæa Arborescens*, being but of little Use, I shall not trouble my Reader with its Description, Temperature, &c. but shall proceed to the Description of the *Marshmallow*.

2. *Its Description.*

Marshmallow is a kind of *Mallow*, whose Leaves are very broad

broad towards the bottom of the Plant, and leffer towards the top, being very soft, of a whitish Colour, and slightly indented about the Edges.

The Stalks are streight and round, of a grey Colour, and often rise about three or four Feet high.

The Flowers are produced at the several Joints of the Stalks from the upper part of the Stem of each Leaf, where they joyn to the several Stems, and are in Form like unto the wild Mallow, but not red as they are, being commonly white, and ring'd with a purple. The Knob or Button, which succeeds the Blossoms wherein their Seed is contain'd, is very like that of the wild Mallow.

The Root is generally very large, tough, white within, containing a clammy and slimy Juice.

3. *Its Temperature.*

Marshmallow is moderately hot, and drier than the wild Mallow. The Root and Seed are more dry, and of thinner Parts, and likewise of a digesting, softning, and mollifying Nature.

4. *The Medicinal Virtues.*

The Leaves of *Marshmallows*, digest, slacken, and mitigate Pain, and are very good, being mixed in Fomentations and Pultises, against the Stone, pain of the Sides, and of the Bladder.

The Decoction of the Leaves drank does the same, and not only asswages the Pain, but easily expells it.

The Decoction of the Roots is very good against the Bloody Flux, and that not by a binding Quality, but by mitigating the Gripings and Frettings thereof; for they are not of a binding Nature.

The Roots boiled in Wine, and the Decoction drank expels the Stone and Gravel, is very good against the Bloody Flux, *Sciatica*, Cramps, and Convulsions; and the Seed beaten to Powder, and drank in good old Port Wine, stops the Bloody Flux, and all other likes Issues of Blood.

5. *The Cultivation.*

Marshmallow is encreased from Seed sown any time in *September* or *March*, the Leaves and Stalks being incapable to resist

resist our Winter's cold, are thereby perish'd, but the Root remains good, which in the *March* following sends forth a new quantity of Stalks, Leaves, and Flowers, which blow in *July* and *August*; and the whole Plant should be gather'd for Use in *September*. The Roots are generally planted about one Foot apart, and delight in a moist fresh Soil.

S E C T. XVII.

Of Marigolds.

1. Their Names.

THE MARIGOLD is call'd *Calendula*, in regard to its being in blossom most Months of the Year. It is also called *Chrysanthemum*, of its golden Colour, in *High Dutch Kingleblumen*, in *Low Dutch Goudt Bloemen*, in *French Souffi* and *Goude*, in *Italian Fior d'ognimese*, and *English Marigolds*, and *Ruddes*.

2. Their Description.

Of *Marigolds* there are a very great Variety, as first, the greatest double *Marigold* called in *Latin Calendula multiflora, maxima*. Secondly, The next greater double *Marigold*, called *Calendula major polyanthos*. Thirdly, The smaller double *Marigold*, called *Calendula minor polyanthos*. Fourthly, The double Globe *Marigold*, called *Calendula multiflora orbiculata*. Fifthly, The Straw coloured double *Marigold*, called *Calendula polyanthos melina*. Sixthly, The single *Marigold*, called *Calendula simplici flore*. And Seventhly, The *French* or *African* *Marigolds*, called in *Latin Caryophyllus Indicus*, whereupon the *French* call it *Ocilletz d'Inde*. In *Low Dutch* 'tis called *Thunis Bloemen*, and in *High Dutch* *Indianischnegelin*, that is the Gilliflower of *India*. *Cordus* calls it *Tanacetum Peruvianum*, because its Leaves are like unto those of *Tansie*, and of its being a Native of *Peru*, a Province of *America*, from whence 'tis thought 'twas brought into *Europe*.

To describe the Stalks, Leaves, &c. of these several Kinds, would be a very tedious and useless Work, seeing that they are in general pretty well known.

3. *Their Temperature.*

The Flowers of the first six Kinds of Marigolds are temperately hot, almost in the second Degree.

The two last, *viz.* the *French* and *African* Marigolds, are of a cold and poisonous Quality, and altho' they produce very beautiful Flowers, yet they are not to be used in either Meat or Medicine; and therefore are only useful to mix amongst other Flowers for Variety's Sake.

4. *The Medicinal Virtues.*

The Flowers of the first Kind of Marigolds strengthen and comfort the Heart, and withstand Poison, being boiled and eaten in Soup, Broths, &c.

5. *Their Cultivation.*

The several Kinds of Marigolds begin their Blossoms in *April*, and continue 'till the Winter's cold destroys them; and as they are continually blowing and decaying, so they are continually succeeded by crooked Seeds, which may be sown as soon as ripe, or any time in the Spring.

It is observable, that those Seeds which grow on the outermost part of the Pods, or Heads, generally produce single Flowers, and those of the middle part double: Therefore to preserve a good kind from degenerating, 'tis best to make use of those Seeds which grow in the middle, and to reject the other.

S E C T. XVIII.

Of Garden Poppy.

1. *The Names.*

POPPY is called in *Greek* *μήκων*, in *Latin* *Papaver*, in *High Dutch* *Magsamen*, in *Low Dutch* *Huel* and *Mancop*, in *French* *Pauot* and *Oliette Gallobelgis*, and in *English* *Poppy* and *Chefs-boul*. The white Garden Poppy is called in *Latin* *Papaver sativum album*, and that which hath black Seeds,

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is surnamed of *Dioscorides* ἄγριον, or wild, and is, as he saith, called *ποιὰς*, because *Opium* is gather'd from it. But the black Garden Poppy is called *Papaver sativum nigrum*.

2. Their Description.

The Leaves of the white Poppy are of a very irregular Form, being long, broad, smooth, and cut or jagged on their Edges very much, and of a very light green Colour.

The Stem or Stalk is very straight and brittle, and is very often towards the middle divided into two, three, four, or five smaller Stalks, each bearing a white Blossom, which before open'd, is enclosed with a soft green Husk, composed of two light-colour'd green Leaf-like Skins, or Coats, between which the Blossoms break forth, in which at the very first appears a small Head, set round or adorn'd with a great Number of small Petals or Threads, like to a Fringe; which Head, when fully perfected, is of a round Form, but something flat on the upper part, (excepting those who are degenerated from the true Garden Poppy, which are of a spheroidical rather than a globular Form) whereon is placed a very beautiful Cover or Coronet.

The inward part of the Shell is wonderfully divided into many curious Cells, between which its white Seeds are generated, and are many in Number. Out of one Poppy Head, which was produced from one Seed only, I have taken upwards of twelve hundred Seeds, and all very sound and good.

The Root runs down in the Ground, like a very small Parsnip, with some few *horizontal* Roots, breaking from the Sides of that which grows downright. When the Heads are beginning to turn hard, and become almost dry, 'tis then that they are to be gather'd, which, when string'd, are hung up in Lines for Use.

The black Garden Poppy very little differs from the preceding in its Leaves and Stalks; but the Flowers or Blossoms are not altogether white, they having a mixture of purple therewith, nor are their Heads near so large as the white Poppy; and whereas the Coronet of the white Poppy is very close in all its Parts, so, on the contrary, the Coronet of the black Poppy is open on the lower Parts thereof, through which it sheds its Seed, which when ripe is of a black Colour, and is therefore called the black Poppy. And

And altho' by Garden Poppies, the white and black Kinds are understood only; yet there are many other Kinds cultivated in the Garden, but more for the sake of their beautiful Blossoms, than for any medicinal Use; and such are, first, the double black Poppy called in *Latin Papaver nigrum Polyanthon*. Secondly, The double white Poppy, or *Papaver album multiflorum*. Thirdly, The double purple Poppy, or *Papaver purpureum Polyanthon*. Fourthly, The scarlet double Poppy, or *Papaver multiflorum coccineum*. Fifthly, *Papaver album Polyanthon minus*, the small double Poppy; and Lastly, the wild double Poppy, called *Papaver multiflorum sylvestre*.

3. Their Temperatures.

All the several Kinds of Poppies are cold, as testified by *Galen*.

4. Their Medicinal Virtues.

The Heads of white Poppies being boil'd in Milk, cause Sleep, repress Distillations or Rheums, and come very near in force to *Opium*, but are more gentle.

Opium, or the hard Juice of Poppy Heads, is the strongest of all.

Meconium (which is the Juice of the Heads and Leaves) is weaker, but either of them taken, either outwardly or inwardly, causes much Sleep, and if taken inwardly in too great a Quantity causes DEATH.

A piece of the white Poppy Shell, as large as a half Crown piece, being boiled in Milk or Wine, is a very good Quantity to be used, where Sleep is required; and if that has not the desired Effect, you may double the Quantity, but never more, lest the Consequence proves fatal to those that take the Decoction.

5. Its Cultivation.

The Seed of the Garden Poppies is ripe about the beginning of *August*; and if 'tis then sown, 'twill come up before the Winter comes on, whose Frosts it resists, and will come much earlier to Perfection than when sown in *February* or *March*, as is usual.

The white Poppy delights in a sandy fresh Loam, and is the chief that is cultivated for physical Uses, which when the young Plants are about the size of a half Crown, or something sooner, are to be thin'd with the Hough, as Turnips are, but must be left at greater Distances, *viz.* about ten or twelve Inches each Plant from the other; and when they are got about four or five Inches high, they must be houghed over again with a great deal of Care; for wherever the corner of the Hough either cuts or bruises any of the Plants, they immediately decay and become useless.

And as I told you, in their Description, that they threw out *horizontal* Roots; therefore this last time of Houghing, you must take Time and Care to remove the Earth very deep, that those Roots may easily strike therein, and receive their proper Nourishment, otherwise, tho' clear from Weeds, they will become very small, and not worth your Labour.

S E C T. XIX.

Of Rosemary.

1. Its Names.

ROSEMARY is called in *Greek* λιβανωτὶς στεφανωματική, in *Latin* *Rosmarinus Coronaria*, which Surname is given it, to distinguish it from the other *Libanotides*, which by some *Herbarists* are reckon'd to be Kinds of Rosemary; the *Italians* call it *Rosmarino coronario*, the *Spaniards* *Romero*, the *French* and *Dutch* *Rosmarin*, and the *English* *Rosemary*.

2. The Description.

Rosemary is a small Evergreen Shrub, which when planted against a Wall, will rise to seven or eight Feet high, but not near so much when planted alone.

It consists of many small Branches, which are very thick set with small, long, and narrow green Leaves, somewhat hard, and of an aromack Taste, and pleasant Smell, amongst which their Flowers are produced in very great plenty; first in the Spring, and again in *August*, being of a very light blue Colour, and pleasant Smell.

3. The

3. *The Temperature.*

Rosemary is hot and dry in the second Degree, and of an astringent or binding Quality.

4. *The Medicinal Virtues.*

Rosemary is given against all Fluxes of Blood. The Flowers are very good against all Infirmities of the Head and Brain, proceeding from a cold and moist Cause. They dry the Brain, quicken the Senses and Memory, and strengthen the muscular Parts.

The distill'd Water of the Flowers being drank every Morning and Evening, the first and last thing after rising and going to Bed, takes away the Stench of the Mouth and Breath, especially when there are a few Cloves, Mace, Cinnamon and Aniseed steep'd or infused therein.

5. *Its Cultivation.*

Rosemary is increased by Slips of the last Year's Shoot, being twisted at the lower end, and planted in *March* or *April* in any kind of Soil.

N B. That Slips of two Years Growth will not strike Root, the Wood being too hard; the like of Lavender.

S E C T. XX.

Of Garden Rue.

1. *Its Names.*

GARDEN RUE is called in *Latin* *Ruta hortensis*, as also in *Italian*, in *High Dutch* 'tis called *Rauten*, in *Low Dutch* *Ruijte*, in *Spanish* *Aruda*, in *French* *Rue de Jardin*, and in *English* *Herb-Grace* and *Rue*.

There is another kind of Rue that is wild, called in *Greek* *πήγανον*, in *Latin* *Ruta sylvestris*, in *Galatia* and *Cappadocia* *μᾶλυ*, and of several *Harmala*; the *Arabians* call it *Harmel*, and the *Syrians* *Besara*.

To give a Description of Garden Rue is needless, it being so well known.

The wild Rue is very like the Garden Rue in Stalks, Leaves, Flowers, Colour, Taste and Savour, but much less; it being an Annual, dies every Winter.

2. *The Temperature.*

Garden Rue is hot and dry in the latter end of the third Degree, and is of thin and subtile Parts; wild Rue is hot and dry in the fourth Degree.

3. *The Medicinal Virtues.*

Garden Rue being taken, breaks and consumes Wind, digests all gross and tough Humours, and provokes Urine. Being boiled in Vinegar and drank, is very good against Gripes, Stitches of the Side and Chest, Shortness of Breath upon a cold Cause, and Pains in the Joints.

The young Shoots being boiled, or rather scalded and kept in a Pickle, and eaten, are a very great help to the Sight, whereof is written

*Nobilis est ruta, quia lumina reddit acuta;
Auxilio ruta, vir lippe videbis acutè.*

The Juice of Rue made hot in a Pomgranate Rind, and dropp'd into the Ear, takes away the Pain instantly. The Leaves of Rue, beaten and drank with Wine, are an Antidote against Poisons.

The Leaves of Rue eaten with the Kernels of Walnuts or Figs stamped together and made into a Paste, are very good against all infectious Airs, Pestilence, Plague, Poison, &c.

Rue boil'd with Dill, Fennel Seed, and some Sugar in Wine, and drank, asswages the Torments of the Belly, as Gripings, &c. the Pains in the Sides and Breast, helps those that are short winded, or breathe with great Difficulty, is very good against a Cough, and stopping of the Lungs, and very much helps those that are inclining to the Dropsie.

N. B. That Rue used very often in Meat or Drink drieth up the natural Seed of Generation, as also the Milk of those that give suck.

Ruta

N. B. *Ruta*

N. B. Ruta Sylvestris; or the wild Rue, is much more vehement, both in Smell and Operation; and therefore the more virulent and pernicious, and not to be used in either Meat or Medicine.

4. *Its Cultivation.*

Garden Rue delights in a light, fresh, shady Soil, wherein is no Dung, that being its mortal Enemy; 'tis encreased by Slips planted any time in *March* or *April*, being twisted at the bottom at the time of planting.

S E C T. XXI.

Of Red and Damask Roses.

1. *Their Names.*

THE Rose is called in *Greek* ῥόδον, and the Plant it self ῥοδάνα, and in *Latin* *Rosa*, and according to *Plutarch*, 'tis called *Rodon*, because it sends forth great plenty of Smell, or pleasant Odour.

The Red Rose is called in *Latin* *Rosa rubra*, in *French* *Rose Franche*, *Rose de Provins*, a Town in *Campaigne*, and by *Pliny* *Trachinia*, or *Prænestina*.

The Damask Rose is called in *High Dutch* *Leibfarbige Roosen*, in *Low Dutch* *Provencie*, and of some *Provincialis* or Rose of *Province*, in *Italian* *Rosa Incarnata*, in *French* *Melesia*, the Rose of *Melaxo*, a City in *Asia*, from whence 'tis thought 'twas first brought into these parts of *Europe*.

And as both of these Kinds of *Roses* are very well known, there needs no Description.

3. *Their Temperatures.*

Red *Roses* being dried, do bind and dry, and also cool, but *Damask Roses* are of a moist, airy and spirituous Nature.

4. *Their Medicinal Virtues.*

The distill'd Water of *Roses* is a great Strengtheners of the Heart, and a very great Refresher of the Spirits.

The

The Juice of the Damask Rose makes the Belly soluble, as also will the Juice of the Musk Rose.

The Syrrup doth moisten and cool, allays the extreme Heat of hot burning Fevers, and quenches Thirst.

The Oil of Roses mitigates all kind of Heat, and will not suffer Inflammations or hot Swellings to rise, or being risen, it instantly asswages them.

The Conserve of Roses being taken fasting in the Morning, and the last thing at Night, comforts the Heart, and a weak Stomach that is moist and raw, strengthens the Liver, Kidneys, and other weak interior Parts.

5. Their Cultivation.

Both Red and Damask Roses are increased by Layers, or Suckers, and delight in a fresh sandy Loam.

The best time to transplant them is *October* or *November*, in Rows about three Feet apart; but in the Gardens about *London*, they generally plant them in the midst of their Strawberry-Beds at the aforesaid Distance, or some small Matter more or less.

N. B. That the Red Roses are gather'd for Use when in Bud before they are near blown open, and the Damask Rose not till they are full blown.

S E C T. XXII.

Of Saffron.

1. Its Names.

SAFFRON is called in *Greek* *κρόκος*, in *Latin* *Crocus*, in *Arabick* *Tahafaran*, in *Spanish* *Acafron*, and in *English* *Saffron*.

2. Its Description.

Saffron is a bulbous rooted Flower, as the several Kinds of Spring and Autumn *Crocus's* are, but much larger. The Flower appears in the Autumn, and is of a purple Colour, something inclining to a blue, and not much unlike the blue
I *Crocus*

Crocus that blows in the Spring. The Flower appears before the Leaves, wherein is contain'd a *Still* or *Pistillum*, which is the pure Saffron its self, and not the Flower wherein it grows.

This *Still* or *Pistillum* of the *Saffron* Flower must be gather'd very early in a Morning before the Sun rises, otherwise when the Sun begins to influence them, they shrink very much, and withdraw themselves almost into the Earth.

The Soil wherein it has been known to thrive very well, as at *Saffron Walden*, is a shallow chalky Loam, not but I have seen very good Saffron produced in the Kitchen Garden of the Honourable *James Johnstone* of *Twickenham*, whose Soil is inclinable to a brick Earth. And I my self have had it in very great Perfection on a fresh sandy Loam. So that 'tis my humble Opinion, it will thrive in most Sorts of Land, a hot Sand or Gravel, and cold Clay excepted.

3. *Its Temperature.*

Saffron is dry in the first Degree, and hot in the second.

4. *The medicinal Virtues.*

Too much *Saffron* being taken prevents Sleep, but when taken with Moderation, 'tis good for the Head, revives the Spirits, expells Drowsiness and makes the Heart merry.

It also strengthens the Heart, concocts crude or raw Humours of the Chest, opens the Lungs, and removes Obstructions.

'Tis an excellent Remedy for those that have a Consumption of the Lungs, when ten or fifteen Grains are given in good Stomach Wine, and is also a very great Restorer of Breath, where People breathe with great Difficulty; 'tis also very good against a Surfeit, and *Yellow Jaundice*.

5. *Its Cultivation.*

The proper Season for planting of *Saffron* is about *Midsummer*, at which time having digg'd and prepared your Ground, and divided the same into Beds about three Feet wide, with Alleys between of one Foot or fifteen Inches, plant therein your young *Bulbs* three or four Inches distant from one another, and about three Inches deep; but that you may be sure of their Growth, observe the following Method.

A a

Your

Your Beds being prepared and set out as before mention'd, strain a Line on the Edge or beginning of a Bed, by which draw a Drill with the corner of a small Hough about three Inches in Depth, and therein place your young *Bulbs* at about three Inches apart, with their bottom close to the Earth; then remove your Line three Inches farther into the Bed, and draw a second Drill, wherein place the *Bulbs* as before, and so on till the whole Bed is planted; then taking a Rake, level down the small Ridges of the Drills, and rake the Border or Bed level, and in like Manner proceed till your whole Plantation is ended.

This manner of planting being duly observed, you will have your new Plantation come up every Year in a very regular Manner, and if the *Bulbs* are all sound, there's none can miscarry, except such as are destroyed by Vermin.

The common Method of planting *bulbous* Roots with a Dibber, occasions many great Miscarriages; for the Hole made by the Shoe of the Dibber being much smaller at bottom than it is in the thickest part of the Dibber, prevents the Fibres of the *Bulb* from striking Root, and therefore must inevitably perish; for when the *Bulb* is put into the Hole and cannot get to the bottom, but sticks by the way at such a Depth as the Planter thinks is necessary, it then has but one only Chance for its Life, and that is, being carelessly put in the Hole, sideways, with the bottom of the Root to the side of the Hole, instead of being placed downward, as they ought to be planted.

This Chance I say is the only one, for then the Earth being contiguous to the fibrous part of the *Bulb*, it has Power to strike therein and preserve its Life; as also when the fibrous or lower part of the Root is placed upwards instead of downwards, and then at such times the leading Bud is obliged to extend its self in a *horizontal* Position (which is against their Nature) beyond the outside of its *Bulb* before it can proceed to its natural perpendicular Position. However, as 'tis a very difficult matter to beat some stubborn Humours out of their old Road who will sooner submit to a great Loss, than hearken to good Instructions; I have only this to say, that my particular Pleasure is to oblige the Wise and Curious, without any regard to the stubborn Coxcomb.

To give Directions for the keeping of your Plantation is needless, since that is natural to every good Gardiner.

The

You will reap the first Fruits of your Labour the second September after planting; at which time you'll gather about one fourth part of the Quantity that is gather'd in the third and fourth Years, when 'tis in its greatest Perfection; and when your Saffron has thus remain'd in the Ground for the space of four Years, it must then be taken up, and replanted, as at the first time of planting four Years before: But to have always a full Crop, you should plant an equal Quantity every Year to come in and succeed the other that is taken up.

The manner of drying Saffron after 'tis gather'd, is perform'd by putting it between two Sheets of clean writing Paper, and dry it over a very gentle Heat.

At Littlebury near Walden in Essex, where Saffron grows in great plenty, every one that propagates it is furnish'd with a small Kiln, whereon they dry their Saffron with Charcoal Fires.

S E C T. XXIII.

Of Savory.

Its Names.

SAVORY is called in Greek *ϕυλίσκος*, nor has it any truer Name in Latin than *Thymbra*, notwithstanding 'tis called *Satureia*, which is repugnant to *Columella*, an old Latin Author, who demonstrates a manifest Difference between *Thymbra* and *Satureia*, in his tenth Book; wherein he says, that Savory has the Taste of *Time*, and of *Thymbra*, or Winter Savory.

Et Satureia Thymi referens Thymbræque Saporem.

Savory is called in High Dutch *Kunel Saturey* and *Sadaney*, in Low Dutch *Ceulen*, in Italian *Savoreggia*, in Spanish *Axedra* and *Sagorida*, in French *Sarriette*, and in English Savory.

Of Savory we have two Kinds, the one called *Satureia hortensis*, or the Garden Winter Savory, and the other *Satureia hortensis aestiva*, or Summer Savory.

2. *Their Descriptions.*

(1.) *Winter Savory* is an Herb very like unto *Hyssop*, but less, more tender and brittle. It consists of many small Branches, beautifully beset with narrow sharp pointed Leaves, which are something longer than those of *Thyme*, among which out of Husks grow white Flowers, something inclinable to a light purple. The Root is very small, as also are the several Branches (as is said before) but are in general very hard.

(2.) *Summer Savory* has very little Difference from the *Winter Savory*, excepting that its Leaves are not so close set together, and when its Seed is ripe in the Autumn, it immediately perishes.

3. *Their Temperatures.*

Winter Savory is hot and dry in the third Degree, but *Summer Savory* is not quite so hot.

4. *Their Medicinal Virtues.*

Both Kinds of *Savories* doth naturally make thin, and cleanse the Passages, and are very good against Wind, being boiled and eaten with *Beans*, *Pease*, &c. which are of a windy Nature.

5. *Their Cultivation.*

They are both propagated from Seed sown in *March*, and delight in a fresh mellow Soil.

S E C T. XXIV.

*Of Self-Heal.*1. *Its Names.*

SELF-HEAL is called in *Latin* *Prunella*, and by some Herbarists *Brunella*, and in *English* *Purnell*, Carpenters Herb, of their often using it to heal Cuts, Wounds, &c. also *Hooke-Heal*, *Sicklewort* and *Self-Heal*. And altho' 'tis a very common Herb in the Fields, and well known to every one; yet I cannot but recommend its being cultivated in the
Phyick

Phylick Garden, for of all Herbs that are growing, there are none more useful than this, and as 'tis no Stranger amongst us, I shall omit the Description.

2. *Its Temperature.*

Self-Heal is hot and dry, and something binding.

3. *The Medicinal Virtue.*

The Decoction of *Self-Heal* made with Wine or Water, doth join and make whole and sound all kind of inward and outward Wounds; and the Herb being bruised with Oil of Roses and Vinegar, and apply'd to the fore part of the Head, asswages the Pain thereof, and in short, 'tis good against all the same Diseases as the *Bugle*.

4. *Its Cultivation.*

Self-Heal doth naturally grow wild in most Fields in *England*, and keeps in Blossom for the greatest part of the Summer, encreasing its self by Seed, which ripens at different times of the Summer, which then is shed, and from thence it rises again. But when the Seed is carefully sav'd, and sown about *Bartholomew-tide*, it will, by the next Summer, be greatly improved, which I have experienc'd to be true.

S E C T. XXV.

Of Solomon Seal.

1. *Its Names.*

SOLOMON'S SEAL is called in *Greek* πολυγόνατον, in *Latin* likewise *Polygonatum*, of many Knees, which the *Greek* Word also imports; by some 'tis called *Sigillum Salomonis*, and *Scala cæli*, in *High Dutch* Weiswurtz, in *French* Seau de Salomon, of the *Hetrurians* Frasinella or Fraxinella, and in *English* *Scala cæli*, Whitewort, Whiteroot, and *Solomon's Seal*.

Of *Solomon Seal* there are six Kinds, whereof there are but two worth our Notice, the one called in *Latin* *Polygonatum*,

natum, or *Solomon's Seal*, and the other called *Polygonatum Minus*, the small *Solomon's Seal*.

2. Their Description.

The first kind of *Solomon Seal* hath long round Stalks, which for the most part, are adorn'd with long furrow'd and rib'd Leaves, very like in form unto those of *Plantane*, which are generally placed all on one side of the Stalk, with very small white Flowers, resembling the Flowers of *Lily Conval*. On the other side when the Flowers are faded, there appear round Berries of a green Colour, which afterwards turn to a very dark or blackish blue, which when ripe, are as large as Hotspur Pease, and of an exceeding sweet and pleasant Taste. The Root is of a white Colour, and very full of Knobs or Joints close set together, which in some Places have very odd Marks, that the Ancients supposed to be the resemblance of an Impression or Mark of a Seal, from which it took the Name of *Sigillum Solomonis*; its Taste is sweet at first, and of a sharp Bitter at last.

The second kind of *Solomon Seal*, differs but very little from the preceding, excepting in the Leaves which are narrower, and are placed round about the Stalk, and not on one side only as the other. The form of the Flowers are the same, but are of a light green Colour, and are succeeded by Berries, as the former, but of a reddish Colour. The Root is like unto the former, having some few Fibres breaking out of its Joints.

3. Their Temperature and Virtues.

Dioscorides makes mention, that the Roots of *Solomon Seal* are excellent good to seal or close up green Wounds, being stamp'd and laid thereon; whereupon he saith it was called *Sigillum Solomonis*, of the singular Virtue that it hath in healing of Wounds, broken Bones, &c.

The fresh Roots of *Solomon Seal* being stamp'd and applied to any Bruise, black or blue Spots acquired by Falls, &c. take them away in one night or two at most.

Galen was of the Opinion, that neither the Herb or Root should be given inwardly; but People of less Capacity since his time have experienc'd the contrary; for in *Hampshire* and many other Places, 'tis administer'd inwardly with great Safety: For when any unhappy Accident happen'd, such as Bruises, broken
Bones,

Bones, &c. in any part of the Body, their Remedy is to stamp the Roots, and give it the Patient in Ale to drink, which very speedily sodders or knits the Bones together, and that in a very strange manner; for altho' the Bones are but very indifferently placed and wrapp'd up, yet it never fails of Success. And when the like Accidents happen to Horses, or other Cattle, they stamp the Roots, and applying them as a Pultise, have the same Effect.

The Roots stamp'd, and applied in manner of a Pultise, and apply'd to Members that have been out of Joint, and newly restored to their Place, drive away the Pain, and knit the Joint very firm, and take away the Inflammation, if any.

The Roots stamp'd, and the Juice given to drink with Ale, or white Wine as before, or the Decoction thereof made in Wine, helps any inward Bruise, and disperseth congealed and clotted Blood: and in one Word, there is not such another Herb growing in the Earth that is known to be so good for Bruises, broken Bones, &c. as this of *Solomon Seal*.

4. *Its Cultivation.*

Both these Kinds delight in fresh mellow Land, and are increased by dividing their Roots, which may be planted any time in *March* or *April*.

S E C T. XXVI.

Of Southernwood.

1. *Its Names.*

SOUTHERNWOOD is called in Greek *Αβροτον*, in Latin *Abrotonum*, in Italian *Abrotano*, in Spanish *Yerva Combriguera*, and *Abrotano*; also in High Dutch *Stabwurtz*, in Low Dutch *Averoone*, and *Avercrunt*, in French *Aurone* and *Auroesne*, and in English *Southernwood* and *Sorberwood*; and as this Shrub is very common and well known in England, it needs no Description.

2. *Its*

2. *Its Temperature.*

Southernwood is hot and dry in the end of the third Degree.

3. *The Medicinal Virtues.*

The Tops, Seed, or Flowers being boiled or stamped raw with Water and drank, are a very good Remedy for those that are troubled with the Cramp, the *Sciatica*, and greatly help those whose Sinews are shrunk.

Being taken in Wine, it kills Worms and expells them, and is very good against deadly Poison.

The Leaves of *Southernwood* boiled in Water until they be soft, and being stamp'd with Barley Meal and Hogs-Lard, and apply'd as a Plaister, dissolveth all cold Humours and Swellings.

4. *Its Cultivation.*

Southernwood or *Sothernwood* is increased by Slips planted in *March* or *April*, and delights in fresh mellow Land.

N. B. That when you plant the Slips, you must twist their lower Parts, as directed for *Lavender*, &c.

S E C T. XXVII.

IV Of *Thyme*.1. *The Kinds and Names.*

THE several Kinds of *Thyme* cultivated in our Gardens are Pot *Thyme*, Limon *Time*, *Mastick Thyme*, and *marum Syriacum* or *Cat Thyme*, which in general are well known to every one, and therefore need no Description.

2. *Their Temperature.*

These Kinds of *Thyme* are hot and dry in the third Degree.

3. *Their*

3. *Their Medicinal Virtues.*

Pot *Thyme* or Mother *Thyme* which grows wild in Meadows, being boiled in Water with Honey and drank, is very good against a Cough, and Shortness of Breath; it provokes Urine, and dissolves congealed or clotted Blood.

4. *Their Cultivation.*

All the several Kinds of *Thyme* are raised either from Seeds sown in *March* or *April*, or increased from Slips planted at the same time; but of these two Ways, I recommend the former. The Pot *Thyme* and Limon *Thyme* will thrive in any kind of Soil that is not over hot or cold; so likewise the Mastick and Cat *Thyme*, provided they are planted in the warmest part of the Garden.

SECT. XXVIII.

Of English Tobacco, or yellow Henbane.

1. *Its Names.*

ENGLISH Tobacco, or yellow *Henbane*, is called in *Latin* *Hyoscyamus luteus*, and of some *Petum*, and *Petun*, and by others *Nicosiana* of *Nicot* a *Frenchman*, who is said to be the first that brought the Seed from the *Indies*; as also the Seed of the true or *Indian* Tobacco, for which this kind has been often taken.

2. *The Description.*

This Herb when fully grown is about three Feet or more in Height, consisting of a very large green Stalk full of a spongy Pith, and is divided into many Branches, which are set with large Leaves that are very smooth, even, thick, and full of Sap or Juice.

The Flowers are produced at the top of the Branches, and are very orderly placed, being of a pale yellow Colour, and something less than those of the black *Henbane*.

The Cups wherein their Flowers are situated, are very like those of the *Henbane*, but much less, and without acute Points, wherein is placed the Husk or Pod, of a round Form full of very small Seeds, not much unlike those of *Marjoram*.

3. *The Temperature.*

This Herb is thought by some to be cold and moist, but according to *L'Obelius*, it rather heats than cools.

4. *The Medicinal Virtues.*

This Herb is very good against all Apostemes, Tumours, inveterate Ulcers, Blotches, &c. being made into an Unguent or Salve as following. Take of the green Leaves three Pound and a half, stamp them very small in a Stone Mortar, and put to them one Quart of *Olive Oil*: Having put them in a Brass Sauce-pan, &c. over a gentle Fire, let them boil until the Herb appears of a blackish Colour, keeping it continually stirring all the while; and when it will not boil or bubble any more, take it off and strain it, and put the clear Oil (which will then be of a green Colour) over the Fire again, with an Addition of half a Pound of Bees-wax, four Ounces of Rosin, and two Ounces of good Turpentine, and when they are all melted together, pour it out into a large Gallypot, &c. for Use.

This green Salve thus made, is of very great Use to all Families, and is what they ought to be never without.

'Tis also of great Service, being apply'd to Burnings, green Wounds, Cuts, &c.

This most useful Herb is raised from Seed, which is ripe in the Autumn, and may at that time be sown, or in the *March* following: The Seed is very hardy and will resist our Winter's cold, and wherever 'tis planted and suffer'd to grow up to Seed, 'tis very difficult to get clear of it again. It delights in fresh rich mellow Land, and when the Plants are of the bigness of a half Crown or more, are transplanted into Rows at a Foot asunder each Plant from the other.

S E C T. XXIX.

Of Violets.

Their Names.

THE Violet is called in Greek *ἰον*, of *Theophrastus* both *ἰον*, and *μελάνιον*, in *Latin* *Nigra Viola*, or black Violet of the blackish purple Colour of the Flowers. The Apothecaries retain the *Latin* Name (which is something wonderful, for they seldom care to call any thing by the true Name as other People do) viz. *viola*, or *Herba violaria & mater violarum*; in *High Dutch* 'tis called *Blauviel*; in *Low Dutch* *violeten*; in *Italian* *viola mammola*; in *Spanish* *violata*; in *French* *violette de mars*; and in *English* Violet.

Nicander in his *Geoponicks* believes (as *Hermolaus* sheweth) that the *Grecians* did call it *ἰον*, because that some certain *Nymphs of Ionia*, gave that Flower first to *Jupiter*; and others say, that it was called *ἰον*, because that when *Jupiter* had turn'd the young Damsel *Io*, whom he tenderly loved, into a Cow, the Earth brought forth this Flower for her Food, and as it was made for her Sake, received that Name from her. And thereupon 'tis thought that the *Latins* also called it *viola*, as though they should say *vitula*, by leaving or blotting out the Letter *t*.

Servius also reporteth, that for the same Cause, the *Latines* do likewise Name it *vaccinium*, alledging the place of *Virgil* in his *Bucolicks*.

Alba ligustra cadunt, vaccinia nigra leguntur.

Notwithstanding *Virgil* in his 10th *Eclog.* shews that *Vaccinium* and *Viola* do differ.

— *Et nigra viola & vaccinia nigra.*

Of Violets we have a very great Variety, as first, The purple Garden Violet, called in *Latin* *Viola nigra sive purpurea*. Secondly; The white Garden Violet called *Viola flore albo*. Thirdly, The double purple Garden Violet called *Viola martia purpurea multiplex*. Fourthly, The double white Violet called

Viola martia alba multiplex. Fifthly, The yellow Violet, called *Viola martia lutea.* And Lastly, Dog's Violets, or wild Violets, called *Viola canina sylvestris.* These several Kinds of Violets are in general very common, and therefore need no Description.

2. Their Temperature.

The Flowers and Leaves of Violets are cool and moist.

3. Their Medicinal Virtues.

The Flowers are good for all Inflammations, especially of the Sides or Lungs. They take away the Hoarseness of the Chest, allay the extreme Heat of the Liver, Kidneys and Bladder, mitigate the fiery Heat of burning Agues, temper the Sharpness of Choler, and take away Thirst.

The Leaves of Violets being taken inwardly, do cool, moisten, and make the Body soluble; and being outwardly apply'd, mitigate all Kind of hot Inflammations.

The Syrup of Violets softens the Belly, and purges Choler.

The Decoction of Violets is good in hot Fevers, and the Inflammation of the Liver, and other interior Parts; as also is the Juice, Syrup, or Conserve of the same.

The Syrup is also very good against the Inflammation of the Lungs and Breast, against the Pleurisie and Cough, against Fevers and Agues in young Children; and especially if you put to one Ounce of Syrup eight or nine Drops of Oil of Vitriol mix'd together, giving the Child a Spoonful at a time.

The same being given as afore said is very good against burning Fevers, and pestilential Diseases, greatly cooling the inward Parts, and comforting the Heart.

4. Their Cultivation.

Violets are increased by parting their Roots, they love a good mellow Soil, and delight very much, when partly shaded. The best time to make new Plantations of Violets, is the latter end of *March* when they have done blowing, and are planted in Beds of three Feet wide, about nine Inches apart.

S E C T. XXX.

Of Wormwood.

1. Its Names.

WORMWOOD is called in Greek *ἀψιθιον*, and is named of *Apuleius Absinthium rusticum*, Country Wormwood, or *Peasants Wormwood*, in *Latin* 'tis called *Absinthium latifolium sive ponticum*, and *Absinthium latifolium*, broad leaf'd Wormwood, to distinguish it from the *Absinthium tenuifolium seu Romanum*, or small leaf'd *Roman Wormwood*, commonly called *Absinthium Romanum*, and in *Low Dutch Roomsche al-sene*. The *Italians* call Wormwood *Assenso*; the *Spaniards Axenxios, Assensios*, and many of them *Donzell*; the *Portuguese Alosna*; in *High Dutch Weronmut, wermut*; in *French Aluyne*; and in *English Wormwood*.

And as both the common and *Roman Wormwood* are very plentiful throughout most, or all Parts of *England*, therefore I need not trouble you with their Descriptions.

2. Their Temperatures.

The common or broad leaf'd Wormwood is hot in the second Degree, and dry in the third.

The small leaf'd or *Roman Wormwood* is also hot and dry, and bitter also, but nothing near so much as the other, its greatest Force being in binding.

3. The Medicinal Virtues.

Wormwood is very good for a weak Stomach, that is troubled with Choler, for it cleanses through its Bitterness, and by its binding Quality, it strengthens and comforts the Stomach.

'Tis oftentimes a good Remedy against a long and lingering Ague, especially *Tertians*, it greatly strengthens the Stomach, creates an Appetite, and clears away Obstructions, bad Humours, &c. by Urine.

The Herb being boiled in Milk, or the Seed given in Treacle to young Children or older grown People, kills and expels Worms out of the Guts.

The

The Herb withstands all PutrifaCTIONS, and is good against a stinking Breath, and prevents Moths from destroying Clothes.

4. *Their Cultivation.*

Both the Kinds of Wormwood are either raised from Seeds sown, or Slips planted in *March*, and will thrive in any Sort of Garden Soil.

And as I have now pass'd through the several Kinds of Physick Herbs necessary for the Use of every Family, as appears by their several Virtues; I shall now conclude with an excellent Receipt for a Consumption, or Shortness of Breath, which I have known by Experience to have made sound and perfect Cures of some Hundreds of poor afflicted People, who after a long and expensive Time have been given over by some of our learned D-o-c-t-o-r-s as incurable.

The Receipt is as follows.

Take of Solomon Seal, Comfrey Leaves and Roots, Marshmallows, Hyssop, Pot Thyme, Mother Thyme, Succory, Agrimony, Plantane Leaves and Roots, Clivers, Nettle Tops, Scabious both Kinds, Dandelion, Rosemary, Violets (or their Leaves if the Flowers are gone,) scarlet Strawberry Leaves, Ground-Ivy, Borage Leaves, Balm, Mint, Pimpernel, and of Colts Foot, each one Handful.

Of Couch-grass Roots, and five leaved Grass, each one Handful and half, with a small Quantity of Rue, and one Head of Garlick.

Of Figs one pound sliced, of Raisins in the Sun, one pound stoned, and one quarter of a pound of Liquorish sliced.

Put all these Ingredients into a large Saucepan with one Gallon of Water, and boil them till one half of the Water is consumed: Then strain off the Liquor and let it stand and settle, which being done, pour it off clear, and boil it up with one pound of brown Sugar-candy, and four pound of the best double refined Sugar; and when all the Scum is boil'd and taken off, and the Syrup appears clear and sparkling, 'tis then completed, and is fit for Use. The manner of keeping it is in Glass Bottles, being well dry'd when put in, and bound over with a piece of Leather pierced full of Holes instead of a Cork.

N. B. That

N. B. That the afflicted must take three Spoonfuls every four Hours, or oftner if their Stomach will bear it, and 'tis best taken when suck'd from off a *Liquorish Stick*, cut jagged at the end.

To say any more in the Praise of this excellent Syrup is superfluous, for whoever makes Use of it will receive such Benefit as will be sufficient to establish its Praise, so that I need not give my self any farther Trouble than what I have already done, in communicating it for a publick Good, which will always be my only Study, *durante vita*.

F I N I S.



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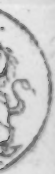
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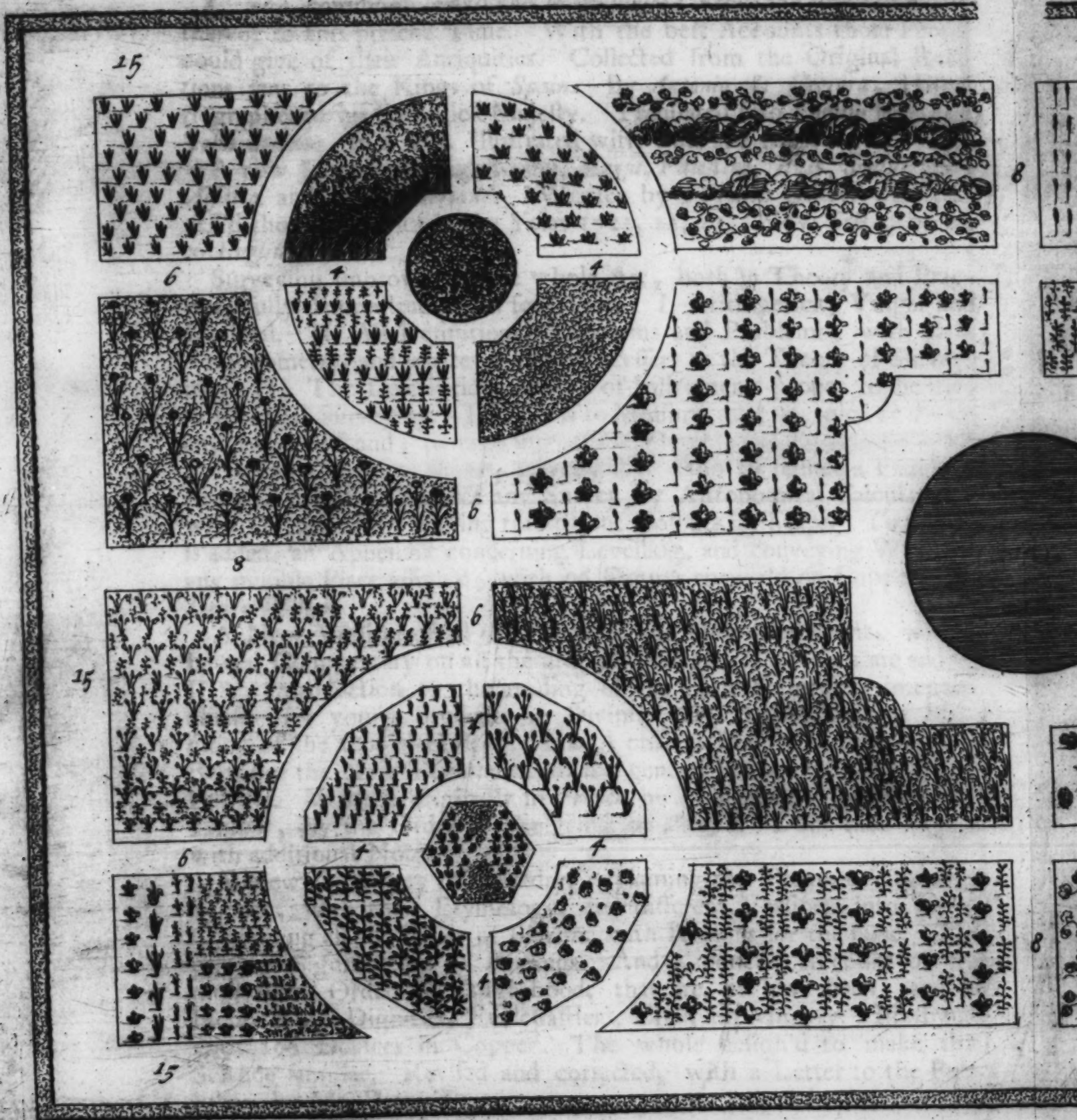
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The Design of an Elegant Kitchen Garden Containing

Plate V.



J. Langley Invent et Delin.

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R

P

1.

2.

20.

Including y^e Walks.



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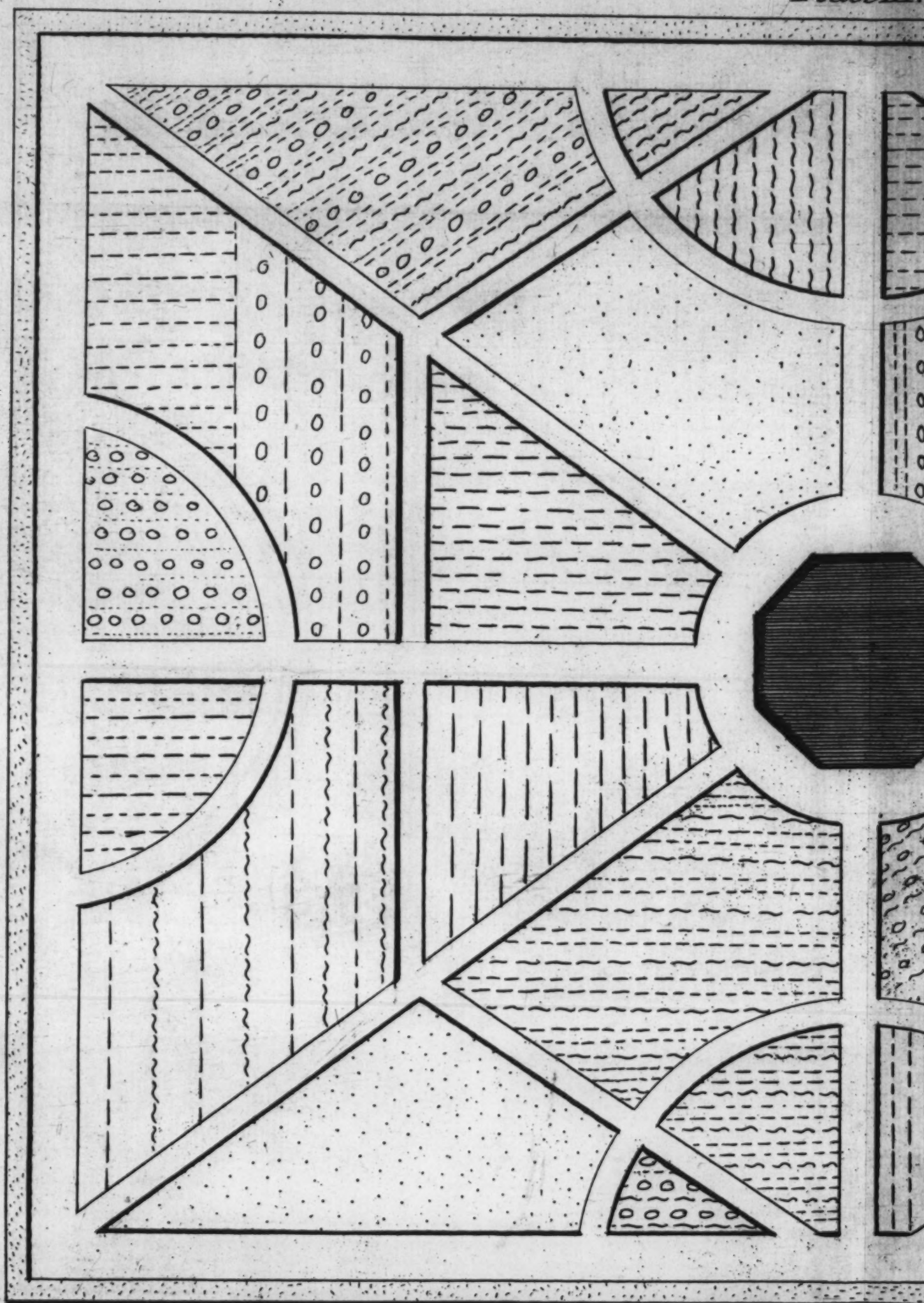
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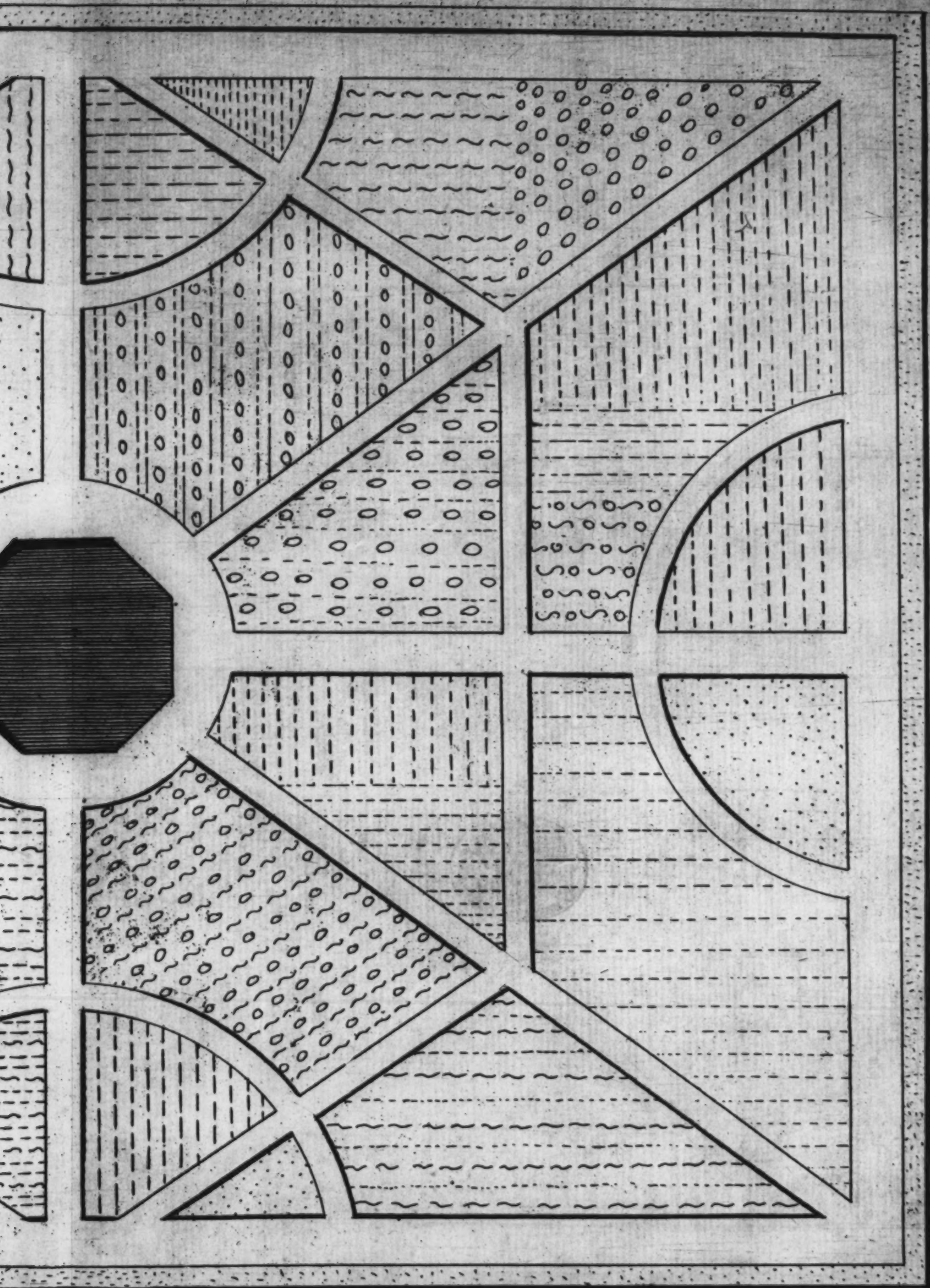
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15

David Lockley Sculp.



The Design of an Elegant Kitchen and fruit

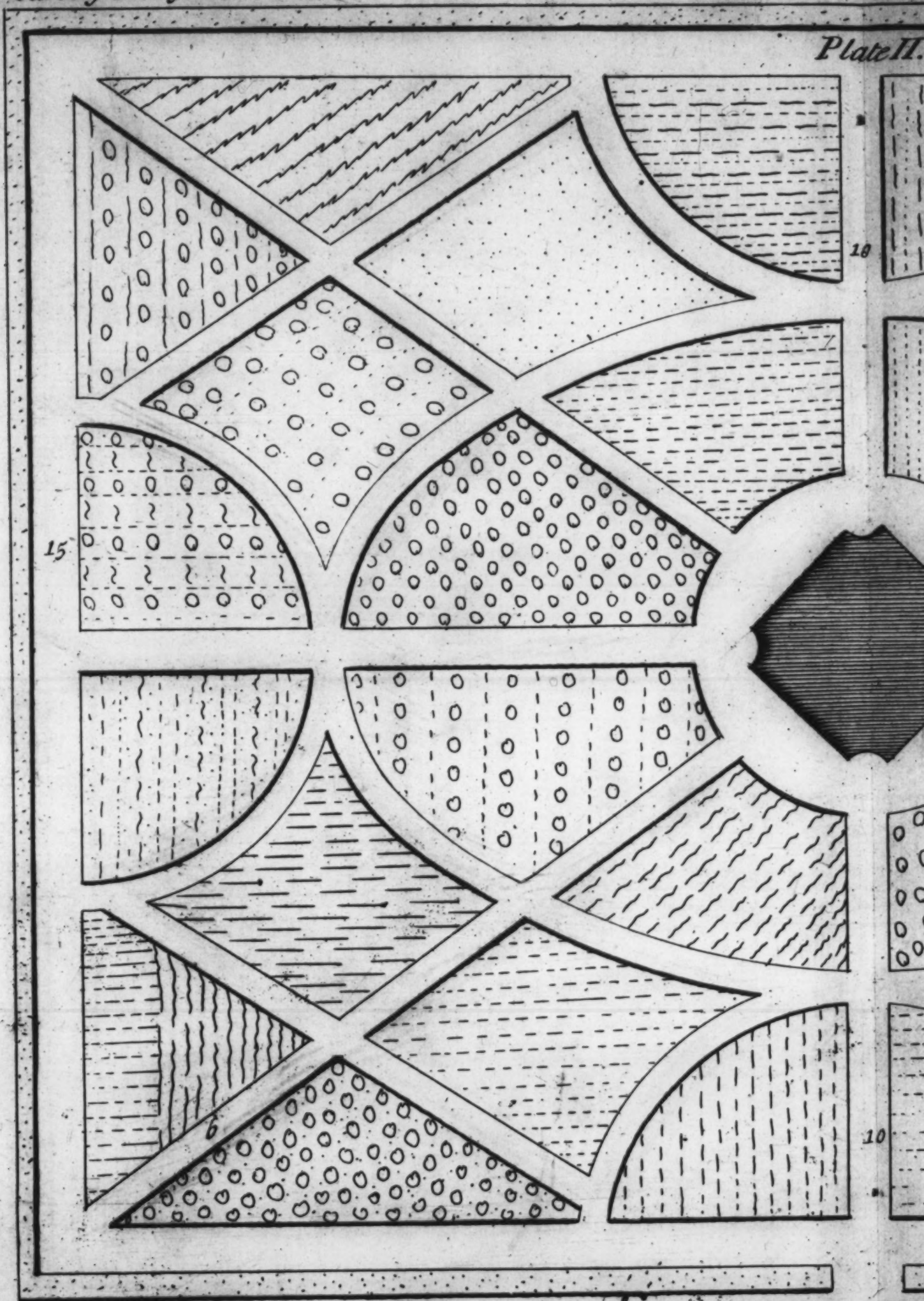


d fruit Garden after a New and Grand Manner.

To follow Plate I. of Kitchen Gardens
and afterwards 3 other four in order.

The Quantity 3 Acres 3 Roods.

Plate II.

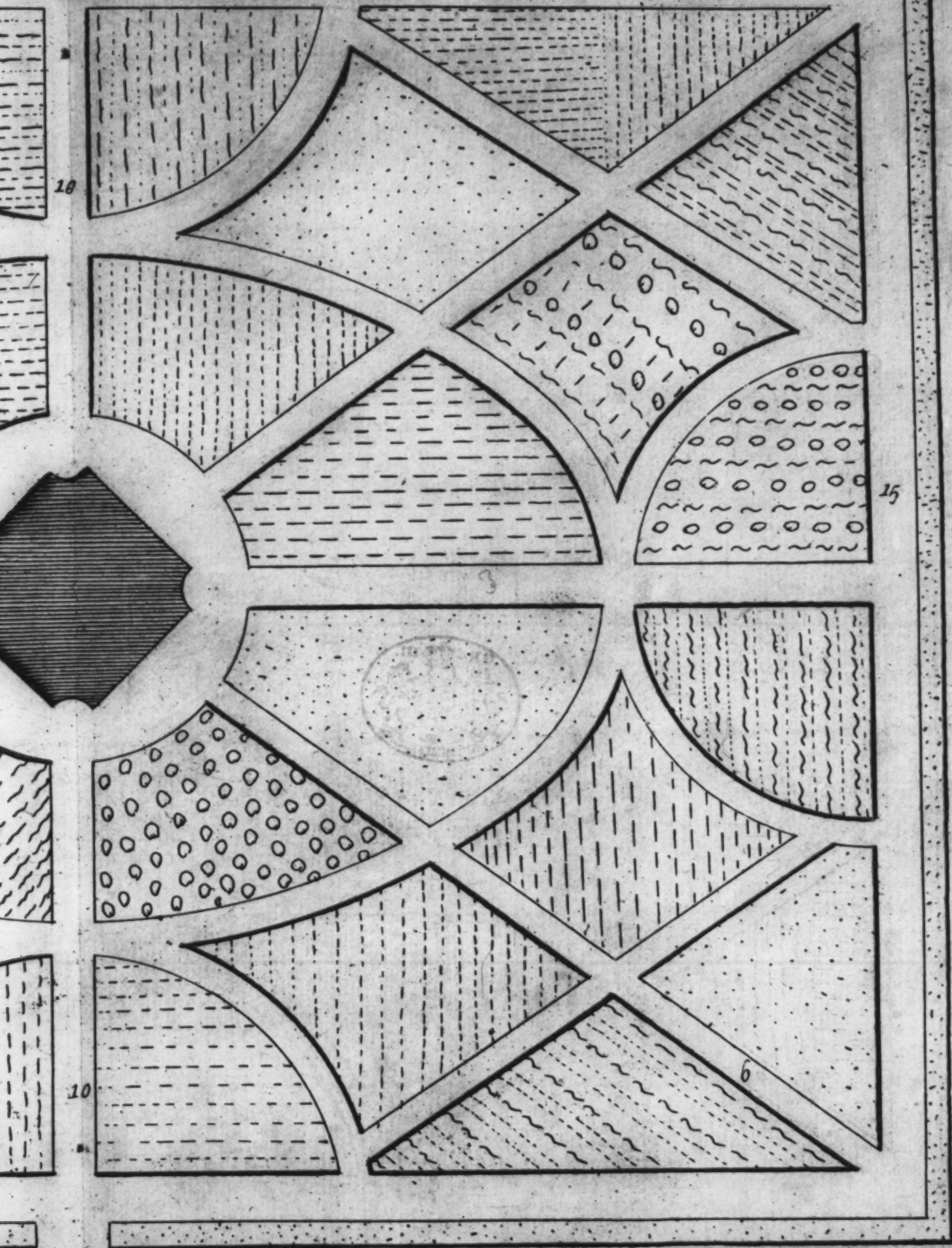


The Design of a Grand Fruit and Kitchen Garden whose

es 3 Roods, Exclusive of 4 Walks.

E

Plate II.



in whose Quarters are Environ'd with Espaliers of Fruit as Plate I.